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THE  
WORKS

OF

FRANCIS BACON,

BARON OF VERULAM,

VISCOUNT ST. ALBAN,

AND

Lord High Chancellor of England.

IN THREE VOLUMES.

To which is prefixed,

A LIFE OF THE AUTHOR,

By MR. MALLETT.



LONDON,

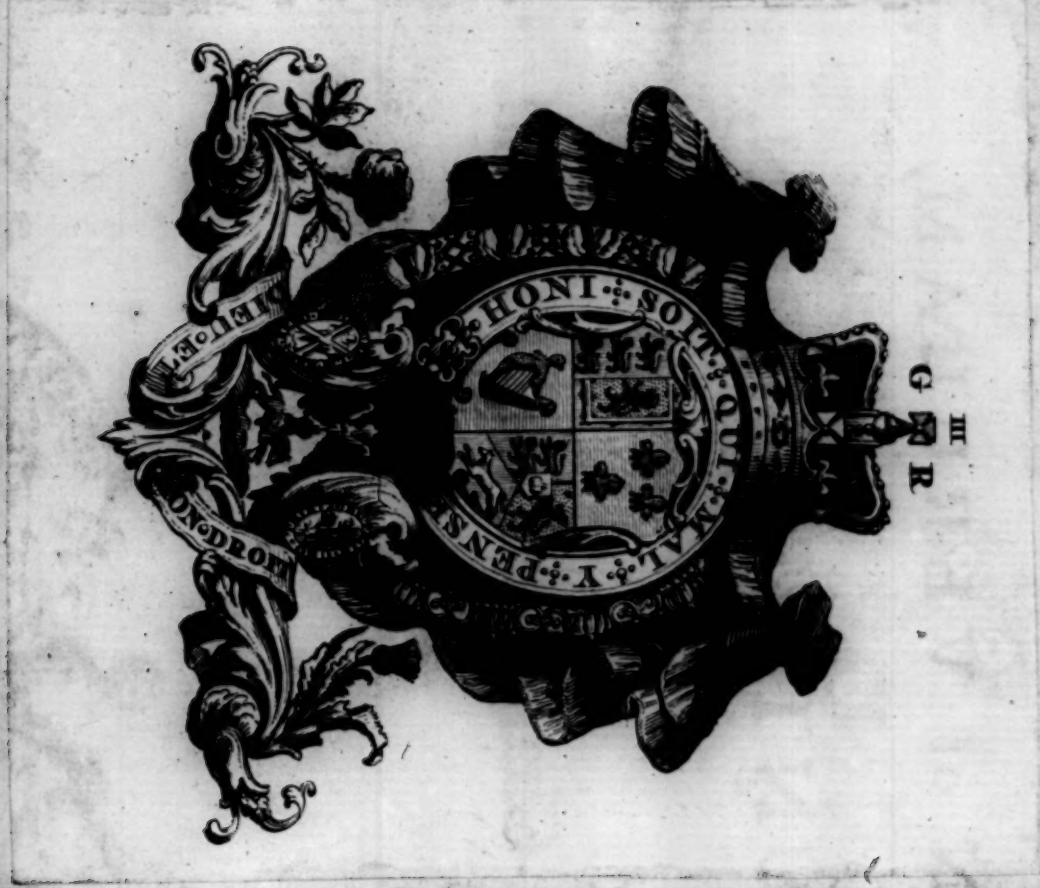
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TO

Dr. RICHARD MEAD,

PHYSICIAN IN ORDINARY

TO

HIS MAJESTY.

SIR,

**A**S a publick Acknowledgment for the generous encouragement you give to every undertaking that may benefit Mankind; and, in particular, for the assistance you were pleased to contribute towards the former collections of my Lord BACON's Works: this present Edition of them is, with the utmost gratitude and regard, inscribed to your Name and Patronage.

That you may long live to be the Ornament of your own profession, and the friend of all other Arts and Sciences, is the sincere wish of,

SIR,

*Your most humble,*

*and most obedient servant,*

THE EDITOR.



NOTES

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## ADVERTISEMENT.

THE Editor has great reason to hope that the lovers of Learning will think themselves obliged to him, for publishing a new Edition of Lord BACON's Works, more methodical, more elegant, and every way more complete, than any preceding.

THE ENGLISH Pieces are thrown into five principal divisions, and printed in the following order. 1. Philosophical. 2. Moral and Political. 3. Law. 4. Theology. 5. Letters.

THE LATIN Pieces are separated from the rest, and ranged in the order pointed out by the Author himself, presenting, at one view, the several parts of his admirable plan for the great Instauration of the Sciences.

But this just Disposition is not the only advantage, which the present edition claims over all the former: for to the English Tracts is now first added, Bacon's *Apology for the earl of Essex*, in the person of that Lord; and to the Latin, the several following Tracts: the Author's translation of his *History of Henry the seventh*; of his *Essays civil and moral*; of his *New Atlantis*; and of his *Advertisement touching an Holy War*. To the third Volume is also prefixed the *Life of Lord Bacon*, written in Latin, by his chaplain Dr. Raleigh.

The whole having been corrected with all possible care, is offered to the Publick much cheaper, though in a much more valuable form, than any preceding Edition.



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# L I F E

O F

FRANCIS BACON,

Lord High Chancellor of ENGLAND.

THE antient Egyptians had a law, which ordained, that the actions and characters of their dead should be solemnly canvassed before certain judges; in order to regulate what was due to their memory. No quality, however exalted; no abilities, however eminent; could exempt the possessors from this last and impartial trial. To ingenious minds this was a powerful incentive, in the pursuit of virtue; and a strong restraint on the most abandoned, in their career of vice. Whoever undertakes to write the life of any person, deserving to be remembered by posterity, ought to look upon this law as prescribed to him. He is fairly to record the faults as well as the good qualities, the failings as well as the perfections, of the dead; with this great view, to warn and improve the living. For this reason, though I shall dwell with pleasure on the shining part of my lord Bacon's character, as a writer; I shall not dare either to conceal or palliate his blemishes, as a man. It equally concerns the public to be made acquainted with both.

Sir Nicholas Bacon was the first lord Keeper of the seals invested with all the dignity, and trusted with all the power, of a lord Chancellor. This high employment he held under queen Elizabeth near twenty years: a minister considerably learned, of remarkable prudence and honesty; serving his country with the integrity of a good man, and preserving, through the whole course of his prosperity, that moderation and plainness of manners which adorn a great man. His second wife was a daughter of Sir Antony Cooke, who had been preceptor to Edward the sixth, and of whom historians have made honorable mention for his skill in the learned languages. Neither have they forgot to celebrate this lady on the same account. To the truth of which even an enemy bore testimony, while he reproached her with having translated, from the Latin, Parsons the Jesuit. bishop Jewel's Apology for the church of England.

Such were the parents of Francis Bacon, whose life I am writing. Of two sons, by this marriage, he was the youngest: and born at York house in the Strand, the twenty-second of January 1561. As he had the good fortune to come into the world at a period of time when arts and sciences were esteemed and cultivated, by the great and powerful, almost in the same degree they are now neglected; so he brought with him a capacity for every kind of knowledge, useful and ornamental. An original genius, formed not to receive implicit notions of thinking and reasoning from what was admitted and taught before him; but to prescribe laws himself, in the empire of learning, to his own and succeeding ages.

He gave marks, very early, of a pregnant and happy disposition, far above his years. We are told that queen Elizabeth took a particular delight in trying him with questions; and received so much satisfaction from the good sense and manliness of his answers, that she was wont to call him, in mirth, her young lord Keeper. One saying of his deserves to be remembered. The queen having asked him



him his age, while he was yet a boy; he answered readily, that he was just two years younger than her happy reign.

Of his education I know no particulars, till he was sent to study in the university of Cambridge under doctor Whitgift, afterwards archbishop of Canterbury: and I find he was entered of Trinity college in his twelfth year. The progress he made was rapid and uncommon: for he had run through the whole circle of the liberal arts, as they were then taught, before he was sixteen. But what is far more surprizing; he began, even then, to see through the emptiness and futility of the philosophy in vogue: and to conjecture, that useful knowledge must be raised on other foundations, and built up with other materials, than had been employed through a tract of many centuries backward. In this, his own genius, aided by a singular discernment, must have been his only preceptor. In matters of reasoning, the authority of Aristotle was still acknowledged infallible in the schools; as much as that of the pope, in affairs of religion, had lately been acknowledged there and every where else. And our author may be justly styled the first great reformer of philosophy. He had the prepossessions, the voluminous and useless reading, nay he had the vanity of men grown old in contrary opinions, to struggle with: yet he lived to see a considerable revolution on his side. Another age brought over the learned of all nations to his party.

It may be justly wondered at, that the lord Keeper, a minister of great observation on men and things, should have sent his son to travel at the age of sixteen; as we find he did: for, by a letter from Sir Amias Rowlet, then ambassador in France, it is certain that young Bacon was at Paris, and under his roof, in the year 1577. We need but look around us, to be convinced how little our youth of quality, who visit foreign countries about that age, are wont to profit either in taste, wisdom, or morals. But perhaps he discovered in his son a maturity of discretion and judgment beyond what is common to that early season of life. However that was, the ambassador conceived a very favorable opinion of Bacon; for he sent him over to the queen with a commission that required secrecy and dispatch: of which he acquitted himself with applause, and then returned to finish his travels. The native heat of his mind, strongly turned to reflection and enquiry, suffered him not to stop short at the study of languages, but led him higher to remark accurately on the customs and manners of those that spoke them; on the characters of their princes, and on the constitution of their several governments. In proof of this, there is still extant among his works, a paper of observations on the general state of Europe, written by him shortly after this time; as I have discovered by a circumstance mentioned in it\*.

He was the youngest son, and seems to have been the favorite of his father; who had set apart a considerable sum of money to purchase an estate for him, in his absence. But before that kind intention could take effect, the lord Keeper died suddenly, by the following accident. He was under the hands of his barber, and, the weather being warmer than usual, had ordered a window before him to be thrown open. As he was become very corpulent, he presently fell asleep in the current of fresh air that was blowing in upon him; and awaked after some time distempered all over. Why, said he to the servant, did you suffer me to sleep thus exposed? The fellow replied, that he durst not presume to disturb him. Then, said the lord Keeper, by your civility I lose my life: and so removed into his bed-chamber, where he died a few days after. Thus there remained to his youngest son only the small proportion of a sum, which was to be divided among five brothers.

The narrowness of his circumstances obliged him to think of some profession for a subsistence: and he applied himself more through necessity, than choice, to the study of the common law. For that purpose, he placed himself in the society of Gray's Inn; where his superior talents rendered him the ornament of the house: as the gentleness and affability of his deportment won him the

\* He says that Henry III. of France was then 30 years old: now that king began his reign in 1574, at the age of 24 years. So that Bacon was then nineteen.



## THE LORD CHANCELLOR BACON.

iii.

affection of all its members. In his profession, he quickly rose to so much eminence and reputation, that, at the age of twenty eight years, he was named by Elizabeth her learned council extraordinary: a distinction which he needed no assistance from his father's merit with her to deserve. It was however next to impossible that so noble a genius, born to embrace the whole compass of science, should confine it's researches within the narrow and perplexed study of precedents and authorities; a study hedged round with brambles and thorns, dark and barbarous in it's beginnings, and rendered in it's progress still more obscure, by the learned dulness of commentators and compilers: men, for the most part, of indefatigable industry, and of no spirit or discernment. Accordingly we find that in this interval he often gave full scope to his conceptions; surveying the whole state of learning, observing it's defects, and imagining the proper methods to supply them. This he first attempted in a treatise which he entitled *THE GREATEST BIRTH OF TIME*; as appears from a letter, written after his retirement, to father Fulgentio the Venetian, in which he passes a kind of censure on the pompous and swelling title prefixed to it. Tho' the piece itself is lost, it appears to have been the first outlines of that amazing design, which he afterwards filled up and finished in his grand *Instauracion* of the sciences. As there is not a more amusing, perhaps a more useful speculation, than that of tracing the history of the human mind, if I may so express myself, in it's progression from truth to truth, and from discovery to discovery; the intelligent reader would doubtless have been pleased to see, in the tract I am speaking of, by what steps and gradations a spirit like Bacon's advanced in building up, for more than thirty years together, his new and universal theory. He thought himself born for the use of human kind: and, in the letter above mentioned, styles himself, the servant of posterity.

These few hints for filling up this first part of our author's life, trivial and unsatisfactory as they may appear, I have yet been obliged to glean here and there in the rubbish of several collections, where they lay scattered, without order or connection. But I shall now no longer regard Bacon as a mere philosopher; as a man of speculation who conversed only with books and his own thoughts, in the shade of retirement and leisure. The course of his fortunes produced him on the great theatre of the world, involved him in business, and complicated him with the most considerable persons of the age he lived in. He was honorably employed by one prince, and highly preferred under another. It will be therefore necessary, that this history may have it's due extent and usefulness, to exhibit a general prospect of the two reigns in which Bacon flourished and fell, at least in their principal points of view. The characters of those with whom he had any connection will illustrate his, and shew it in a truer, as well as a fuller light.

I have yet another reason for enlarging this account beyond the ordinary limits. Our author's letters are written, many of them at least, on public occasions, and may be considered as the most authentic vouchers for several remarkable occurrences, in which he himself was an actor, and well acquainted with the secret motives on which others acted. But as those things are for the most part only hinted at, or no farther opened than to serve the present purpose of his letter; they will require to be developed at some length, and ranged into their proper places.

Elizabeth had a larger share of good sense and sound judgment, than is commonly to be met with among women; accompanied with a greatness of mind and steadiness of purpose that might do honor to the best of men. These her natural endowments received much, tho' severe, improvement from the dangers she was exposed to in the first part of her life. She grew up in a strict attention over her own actions, even over her looks and words, from the rigor of her father's temper, and particularly from the jealous cruelty of her sister's administration: a short but memorable period of time! when England beheld, under a female reign, such instances of merciless rage, such scenes of horror, as had of old startled the Roman world, under a Nero and a Domitian. The dreadful genius of that superstition to which she had devoted herself, then



then exerted its spirit undisguised, in betraying, tormenting, butchering, by the ministry of inhuman priests and inquisitors, whoever would not profess what he could not possibly believe. If we may credit historians, they had even doomed Elizabeth herself to die: and she escaped, miraculously, not by the kindness, but the policy of Philip; himself a tyrant, the coolest and most determined of these latter ages.

At her accession to the throne, she found her revenues anticipated or exhausted; her kingdom, through the sanguinary madness of her predecessor, disjointed and broken of its vigor within: at the same time unsupported by allies and without consideration abroad. Her good sense led her to see, by the errors of her father and her sister, that she could expect to reign with security, only by deserving the confidence and gaining the love of the nation: and that in order thereto, she must propose to herself no other end of ruling but the happiness and honor of all her people. This system of policy, so simple in itself, so glorious in its consequences, and yet by princes so seldom pursued, she adhered to steadily, almost uniformly, through a long and triumphant reign; for this very reason triumphant!

The reformation of religion she attempted and effected, at a season when her power was unconfirmed, and in probable danger from intestine commotions. For revolutions in religion are apt to put the whole constitution of a society into ferment, even more strongly than alterations in government; as every individual is immediately and intimately actuated by what seems to him of highest and most lasting concern. She kept awake, and animated, with wonderful address, the divisions in Scotland, in France, in the Netherlands: and that with more justice on her part, than is usually observed by princes when they would do ill offices to their neighbours. The sovereigns of those countries, when they agreed in nothing else, were ever combined in a common enmity to her: at a time too when she had nothing to oppose against their pretensions, their conspiracies, their open attacks, but her own courage and the native strength of England alone. And yet, by helping forward the reformation in Scotland; by supporting the protestants in France; by the wise and well-managed supplies she sent to the Dutch, who were struggling hard for their lives and liberties with an unrelenting tyrant: by this series of conduct, steadily pursued, she triumphed over all opposition, and rendered herself the arbitress of Europe. For it may be affirmed, that her administration made a greater impression on all the states round her, than it received itself from any: an undoubted proof of its firmness and active vigor.

When she came to the crown, she found the nation four millions in debt: a sum then almost incredible! and yet her oeconomy alone enabled her to discharge it. The coin, which had been much embased by Henry the eighth, and by Mary wholly neglected, she quickly restored to its just standard; and therewith the public faith and credit. Her magazines she carefully replenished with arms, ammunition, warlike stores of every kind: and the youth all over England were ordered to be duly trained in military exercises. Her navy was fallen to decay, and almost abandoned. This she set herself to repair with an attention, which the great bulwark of this kingdom will ever deserve from a prince, who understands in what his own strength and that of his dominions naturally consist. Her fleet was at last a match for the mighty armada of Spain: that armada, which was boasted to be invincible, and was in truth a desperate effort of the whole power and resentment of her bitterest enemy. Her victory over him, as entire as it was glorious, gave security and renown to this island: and, whatever the partiality of foreign writers may have insinuated to the contrary, she owed it to her own heroic conduct, and the unexampled bravery of her subjects.

She was the first of our princes who pursued, in any considerable degree, the only sure method of making England great and powerful; by encouraging and extending our commerce: which, under her protection, grew high, and spread itself through the North and to both the Indies. In a word, such was her conduct, such her good fortune, in this island and on the continent, that her allies  
had



## L O R D C H A N C E L L O R B A C C O N.

had the strongest confidence in her assistance and good faith: that her enemies stood in awe of her power, and were forced to an unwilling approbation of her prudence. The applause of such as think they have cause to hate, and distress us, is the sincerest, as it is the noblest praise. Her oeconomy was admirable. She husbanded the public money for her people's ease: she laid it out, on proper occasions, for their safety and honor. The undertakings of the government were never greater; the charge was never less. This gives the highest idea of her ministry, and places their characters, in general, above imputation or reproach.

Of Sir Nicholas Bacon, our author's father, I have already given some account: and shall only add here, that he never aspired beyond the rank he brought with him to court. His moderation in all other respects was the same. When the queen visited him at his seat in Hertfordshire, she told him with an air of pleasantry, that his house was too little for him. No, replied the lord Keeper; but your Majesty has made me too great for my house.

Walsingham, in his private character, was of unblemished honesty. As a minister he had singular sagacity in procuring intelligence; which he knew to apply, with great dexterity, to the purposes of government: devoting himself, with so generous a self-neglect, to the service of his country, that he gained a reputation for contempt of riches, which would have been highly revered in the best times of antiquity; and will go near, in these days, to be thought either folly or frenzy.

The lord Treasurer Burleigh, for his consummate abilities as a statesman, was reckoned the first name of his age: and is still pointed out as a pattern, which we rather wish, than expect, to see fully copied by his successors in power. As he had strong natural parts, and was of unwearied application to business, his experience must have been universal and unequalled; for he was at the head of the government almost forty years. He seems, in particular, to have been eminently possessed of that intrepidity of head, that civil courage, so necessary in a great minister: and without which no minister will ever do any thing truly noble, or of lasting utility to mankind. Inviolably attached to his mistress, he served her with equal fidelity and success: and had the singular felicity to promote the good of his country by the same arts that he employed to gratify the inclinations of his sovereign.

The glory of this prince's will receive a new lustre by comparing the state of England with that of almost all other nations in Europe, at the same time. It must have been no common addition to the tranquillity and happiness of our ancestors, that they enjoyed both, uninterrupted, for such a length of years; while Scotland and France, Spain and Holland, were torn with continual divisions, and bleeding by the wounds of foreign and domestic wars. Her's too was the age of heroes both in arts and arms. Great captains, able statesmen, writers of the highest order arose, and under her influence flourished together. Thus Bacon had all the incentives that could kindle him up to a generous ambition, and quicken his emulation in the pursuit of knowledge and honest fame. And indeed his letters remain a proof, that if he courted the proper opportunities of raising his name, he lost none that might improve and enlarge his mind. As the lord Treasurer had married his aunt, we find him frequent in his applications to that minister for some place of credit and service in the state. He professes too, that his views on this head are as moderate, as his aims another way are ambitious and vast; for that he had taken all philosophy for his province. My lord Burleigh interested himself so far on his behalf as to procure for him, against violent opposition, the office of Register to the Star-chamber, worth about 1600*l.* a year: but it was only in reversion, and did not fall to him till near twenty years afterwards. Neither did he obtain any other preferment all this reign: tho his winning address, his eloquence, his large and systematical learning had raised him to the admiration of the greatest men at court. He was particularly esteemed and patronized by Robert Devereux, the famous and unfortunate earl of Essex; to whom he attached himself in his younger years, and by whose interest in the queen he flattered himself with

Bacon,  
Vol. II.  
Letter vii.



## THE LIFE OF THE

the prospect of bettering his condition. Elizabeth herself shewed him several marks of distinction, admitted him often to her presence, and even consulted him on the state of her affairs: as her ministers sometimes made use of his pen in the vindication of her government. And yet, notwithstanding these fair appearances, he met with no preferment from that queen answerable to the idea we have of his merit, or her discernment in the distribution of favors. This deserves some explanation; as it will discover to us the true genius of those ministers, who, pretending to merit themselves, are jealous of it in all other men: who are equally poor-spirited and aspiring.

The whole court was at this time rent into factions, headed on one part by the earl of Essex; on the other by the Cecils, father and son. Essex was then in all the flower of his youth, and remarkable for the gracefulness of his person. In his nature brave, ambitious, popular: and what is uncommon, at once the favorite of the sovereign and of the nation. Fond of military glory; liberal to profusion; devoted entirely to his friends, and keeping no measures with his enemies; of competent learning himself, and a signal benefactor to learned men. One quality he had, which distinguishes him eminently from such as are personally beloved by princes: in the height of his favor he received the admonitions, the remonstrances of his friends with all gentleness; and was ever most patient of the truth. But then he wanted those arts which are most necessary in a courtier; and are indeed the only qualities which the rabble of courtiers value themselves upon; circumspection, cunning, affectation of secrecy, with a servile obsequiousness to the humors of their superiors, and a mean but anxious attention to their own interest, whether at the expence of their patrons, or of their country. A different turn of mind gave the earl's enemies great advantages against him. They failed not to represent to the queen, on several occasions, that this young lord, not satisfied with the distinction of being her favorite, pretended to be her master; and prescribed to her judgment on affairs of state, with a haughtiness ill becoming the distance betwixt a Sovereign and the creature of her bounty. Such insinuations, as they were partly true, could not fail of making an impression on Elizabeth, who was naturally high spirited, and infinitely jealous of her authority. Tho she had a particular fondness for the earl, she took occasion every now and then to mortify his pride, by refusing to advance those friends of his whom he recommended for preferment. After his return from the expedition to Cadiz, in which he had behaved himself with much gallantry, she raised his enemy, Sir Robert Cecil, to be Secretary of state; tho he had earnestly solicited that post for another. He had often applied to her in behalf of Bacon, and asked for him, with all the warmth of friendship, the place of Solicitor General, but had been always refused. Cecil, who mortally hated Essex, and had entertained a secret jealousy of Bacon, on account of his superior talents, represented the latter to the queen as a man of mere speculation; as one wholly given up to philosophical inquiries, new indeed and amusing, but fanciful and unsolid: and therefore more likely to distract her affairs, than to serve her usefully and with proper judgment. Bacon however was this man's cousin-german; his father and the lord Burleigh having married two sisters: but ambition knows neither merit nor relation. This unworthy treatment from so near a kinsman carried Bacon into very free expostulations on his courtly-artifices, as he endeavoured in secret to crush the man whom yet he pretended openly to serve: and these repeated disappointments sunk so deep into his spirit, that he was several times on the point of retiring for ever, and even of hiding his grief and resentment in some foreign country. Essex, who could but ill brook the mortification of a denial, finding himself unable to serve his friend in a public way, would needs make up the loss to him out of his own private fortune: and if we may believe Busnel, he bestowed upon him about this time Twickenham-Park and its garden of Paradise. Whether it was that or some other of his lands, the donation was so very considerable, that Bacon, as himself acknowledges in his Apology, sold it afterwards, even at an under price, for no less than eighteen hundred pounds. A bounty so noble, accompanied too, as we know it was, with all those agreeable distinctions



distinctions that to a mind, delicately sensible, are more obliging than the bounty itself, must kindle in the breast of a good man the most ardent sentiments of gratitude, and create an inviolable attachment to such a benefactor. What then are we to think of Bacon, when we find him, after this nobleman's unhappy fate, publishing to all England a Declaration of the treasons of Robert earl of Essex? This behaviour drew upon him a heavy and general hatred at that time; which was not extinguished even by his death, but continues still, in the writings of more than one historian, an imputation on his memory. As this transaction is of importance to his moral character, I will lay it before the reader as impartially as I can.

Elizabeth had raised that young lord, through a series of honors, to be earl Marshal of England: and was every day giving him new proofs of a particular and uncommon esteem. This only served to exasperate his enemies. They were powerful, and closely united. But as they durst not attack him openly, they had recourse to dark and surer arts of vengeance; against which his openness of temper, unsuspecting and improvident, was no wise guarded. In truth, his imperious humor, which he could seldom disguise, aided their designs; for it often broke forth into downright abuse and scorn of those who thwarted his projects, or dissented from his opinions: and he once, in some dispute with the Queen herself, turned his back abruptly upon her with all the marks of disrespect and contempt. Provoked at this insolence, Elizabeth forgetting her sex, and the dignity of her character, struck the earl a box on the ear: which he on his part, with a meanness of passion yet less excusable in a man, resented so highly as to lay his hand on his sword, against a woman and his sovereign. No subsequent favors could wear this imaginary affront out of his memory; tho she pardoned him the insult that occasioned it, and sent him shortly after into Ireland, as her viceroy, with a commission almost unlimited. His conduct there has not escaped the censure of historians, who have remarked severely on the unjustifiable treaty he made with the arch-rebel Tyrone, on the private conference they held together, and on his precipitate return to England, against the queen's express orders. This last ill step he was betrayed into, if we may believe Osborn, by an artifice of Cecil: who first inflamed Elizabeth's suspicions of the earl, and then stopped all vessels that were to sail for Ireland, except one <sup>Mem. of Q. Eliz. p. 438.</sup> which he ordered thither on purpose with a feigned report of her death. Fatally deceived by this intelligence, Essex sailed away in a hurry for England, attended only by a few of his friends. The Queen received him without any emotion either of anger or affection, and having confined him to his own house, ordered his conduct to be examined in the Star-chamber. At this usage of him, however gracious and moderate, the people, whose idol he was, loudly exclaimed: and their unseasonable partiality, represented by his adversaries as of dangerous tendency to the state, kindled anew the queen's indignation against him. Thus that popularity he had so eagerly courted, and so much depended upon, served now only to hasten forward his destruction. He was sentenced by the council to be removed from his place at that board; to be suspended from his offices of earl Marshal and Master of the ordnance, and to be imprisoned during the queen's pleasure. Having humbled him thus far, she stopt short, forbidding his sentence to be entered on record, and still continuing him Master of the horse. She even gave him the full enjoyment of his liberty, upon his expressing a perfect resignation to her pleasure; but withal advised him to be his own keeper. His seeming repentance was of short duration; for upon the queen's refusal to grant him the farm of sweet wines, which he had very imprudently petitioned for, he returned out of the country, and again abandoned himself to all the impetuosity of his temper; or rather to the pernicious suggestions of his followers. Indeed, the presumption that naturally grows out of successful ambition, and the interested counsels of those whose fortunes were involved with his, seem to have entirely turned his head: for his actions henceforward were the genuine effects of frenzy and despair. In conjunction with his friends, of several conditions, he meditated no less an attempt than to seize on the palace, to make himself master of the queen's person, and to banish

from



State Trials,  
Vol. I. p.  
205.

from about her all those whom he reputed his enemies. Never was conspiracy so ill laid, or conducted with so little probability of success. The court was presently alarmed, his house invested, himself and his friends made prisoners without any resistance on his part; for tho he was embarked in a kind of rebellion, he knew not how to be a rebel. The particulars of his trial are foreign to my purpose. It was managed against him by Sir Edward Coke, the Attorney General, and by Bacon as one of the queen's council. It ought not to be forgot that the former treated this unfortunate nobleman with a strain of petulant dulness and scurrility that makes us condemn his talent as a pleader, while we abhor the purpose to which he made it subservient. Bacon was moderate and decent. The crime was proved by a cloud of witnesses: and the unanimous suffrage of his peers found him guilty. After his sentence he appeared wholly indifferent to life or death: tho the queen seemed still irresolute, or rather inclining to save him. He died with the tenderness of a penitent, and the firmness of a hero: tho the marshal de Biron jested on his deportment in that last scene of life, as suiting rather a monk than a soldier.

The untimely fate of this nobleman, who died on a scaffold in the prime and vigor of his years, excited universal pity, and was murmured against by all conditions of people. Their reflections on the prevailing party at court, even on the Queen herself, were so bold and injurious, that the administration thought it necessary to vindicate their conduct in a public appeal to the people. This task was assigned to Bacon, even then in high esteem for his excellencies as a writer. Some say it was by his enemies insidiously imposed on him, to divert the national resentment from themselves upon a particular person, who was known to have lived in friendship with Essex, and whom they intended to ruin in the public esteem. If such was their intention, they succeeded but too well in it. Never man incurred more universal or more lasting censure than Bacon by this writing.

Apology,  
Vol. I.  
p. 605.

He was every where traduced as one who endeavoured to murder the good name of his benefactor, after the ministry had destroyed his person: his life was even threatened; and he went in daily hazard of assassination. This obliged him to publish, in his own defence, the Apology we find among his writings. It is long and elaborate; but not, perhaps, in every part satisfactory. Let us believe him on his own testimony, that he had never done that nobleman any ill offices with the queen; tho she herself had, it seems, insinuated the contrary: that on the other hand he had always, during the time of their intimacy, given him advice no less useful than sincere; that he had wished, nay, endeavoured the earl's preservation even at last, purely from affection to him, without any regard to his own interest in that endeavour: let all this be allowed; some blemish will still remain on his character.

Essex deserved the fate he underwent: but he had paid his debt to justice; and the commonwealth had now nothing to fear from any of his party. The declaration above mentioned could therefore be intended, only to fill the present clamors of the multitude; and tho the matter of it might be true, Bacon was not the man who should have published those truths. He had been long and highly indebted to the earl's friendship, almost beyond the example even of that age. In another man this proceeding might not have been blameable; in him it cannot be excused. In the next reign Sir Henry Yelverton ventured on the displeasure both of the king and his minion, rather than do the ministry of his office, by pleading against the earl of Somerset, who had made him Solicitor General. Had Bacon refused that invidious part, there were others, among the herd of aspiring and officious lawyers, ready enough to have performed it: and his very enemies must have thought more advantageously of him for declining a task, in itself of no essential importance to the state, and in him unjust to friendship, obligation, gratitude, the most sacred regards among men.

Aul. Cogui.  
p. 180.

Osborn,  
p. 459.  
\* He is the  
first author  
who mentions  
the story of  
the ring.

Elizabeth survived her favorite about a year: and, if we may credit Osborn, the grief and remorse for his fate accompanied her to the grave\*. She died the twenty-fourth of March 1603, in the fulness of days and honor. Her reign had been long and triumphant: and she had through the whole course of it pre-

served,



served, what she so justly merited, the love and veneration of her people; the truest glory, the rarest felicity of a sovereign! She was succeeded by James the sixth of Scotland, under whom Bacon ascended, by several steps, to the highest dignity of the law.

1603.

This prince, the most unwarlike that ever lived, was born in the midst of civil commotions; at a time when his whole kingdom was torn into factions, betwixt the party who had espoused the interests of his mother, and those who had declared for him. After he had taken the administration into his own hands, he was hardly ever his own master; suffering himself to be led implicitly by the cabal in whose power he then happened to be. The moment he thought himself at liberty from either, like a boy escaped from under the eye of a rigid preceptor, he forgot all his uneasinesses, and abandoned himself to his favorite amusements of hawking and hunting, as if his kingdom had been in the profoundest tranquillity. He grew up in an unaccountable fondness for favorites. The first, who took deep root with him, was likewise the worst; not only encouraging him in a total inapplication to business, but tincturing his youth with the poison of all debauchery. The name of this man was Stuart, afterwards Earl of Arran; one who had great and dangerous vices, without a single virtue, private or public, to atone for them: an open scoffer at the obligations of morality, insolent, rapacious, sanguinary; hated by, and hating, all good men. The honestest part of the nobility often remonstrated against the credit and pernicious influence of this minion: James acknowledged the justice of their remonstrances; banished him several times from court; and several times received Melvil, him into new favor. He was at length shot by a private hand in revenge for the death of the earl of Morton, to which he had basely contributed. Melvil's Mem. p. 131.

James hated the church of Scotland; and confirmed it's authority. He declared the attempt of those lords, who had rescued him out of the hands of Arran and Lennox, to be just and serviceable: he afterwards banished them, and would have confiscated their estates, on that very account. When they had made themselves masters of his person a second time, he pronounced them all traitors; and pardoned them. P. 169.

Elizabeth, who knew his genius perfectly, sent Mr. Wotton on an embassy to him in 1585. Her intention was to divert him from a marriage with the prince of Denmark, and to give his counsels what other turn her interests might require. The ambassador, a man of address and intrigue, had, by long habitude, learnt to personate all characters, and to assume, with an ease that seemed altogether unaffected, whatever shape might serve most effectually the purposes of his superiors. At the age of twenty-one he had been employed to sound the intentions of the court of France: and had well nigh duped the famous constable de Montmorency, a minister grown grey in the observation of human falsehood and artifice. To his natural talent he had now added the experience of thirty years more. By accompanying king James in his sports; by falling in frankly, and as it were naturally, with all his passions; by making a jest of buffoneries; by entertaining him pleasantly with an account of foreign fashions and follies; this man gained an absolute ascendant not only over his understanding, but over his humor. His most faithful subjects, who had served him longest and best, who had even warned him against the subtleties of this stranger, he received with approbation or dislike just as Wotton inspired him. He was even brought by him to be seriously persuaded that the king of Denmark was descended from a race of merchants: and that an alliance with his daughter was therefore infinitely beneath a king of Scotland's dignity. P. 164.

Such was the prince who now mounted that throne, which Elizabeth had filled with so great capacity and reputation. The union of the two crowns in the person of one sovereign, was extremely dreaded by foreigners, and in particular by Henry the fourth of France. The accession of a new kingdom to the native force of England, which even alone had been long formidable on the continent; the alliance of James with the most potent monarch of the North; his relation to the house of Lorraine, which had lately embroiled all France, rendered such fears very probable. But his conduct dissipated them for ever: and



Wilson, p. 7.

Bacon, Vol.  
II. Letter  
LXXIII.

An. 1605.

Emmison's  
Baconiana,  
p. 25.

P. 27.

Stephens's  
Collections,  
p. ix.

State Tryal,  
Vol. I. p.  
207, &c.

all Europe quickly saw, that no people but his own had any thing to apprehend from his power. At his arrival in England, he bestowed titles and honors with so wild a profusion, that there hardly remained any other mark of distinction but that of having escaped them. The public stood amazed: and passengers were openly affixed, undertaking to assist weaker memories to a competent knowledge of the nobility. Sir Francis Bacon, who had been early in his homage, and application for favor, to the new sovereign, was knighted by him in person: and has left us the following picture of him, strongly touched in it's most obvious features. "His speech, says he, is swift and cursory; and in the full dialect of his country: in matters of business, short; in general discourse, large. He affecteth popularity, by gracing such as he hath heard to be popular; not by any fashions of his own. He is thought somewhat general in his favors: and his easiness of access is rather because he is much abroad and in a crowd, than that he giveth easy audience. He hasteneth to a mixture of both kingdoms and occasions faster, perhaps, than policy will well bear."

In 1605, Sir Francis Bacon recommended himself to the king's particular notice, as well as to the general esteem of his contemporaries, by publishing a work he had long meditated; The Progress and Advancement of Learning. The great aim of this treatise, no less original in the design than happy in the execution, was to survey accurately the whole state and extent of the intellectual world; what parts of it had been unsuccessfully cultivated; what lay still neglected, or unknown; and by what methods these might be discovered, and those improved to the farther advantage of society and human nature. By exposing the errors and imperfections of our knowledge, he led mankind into the only right way of supplying the one, and reforming the other: he taught them to know their wants. He even went farther, and himself pointed out to them the general methods of correction and improvement in the whole circle of arts and sciences. This work he first published in English: but to render it of more extensive use, he recommended a translation of it into Latin to Dr. Playfer of Cambridge. Playfer, with the scrupulous accuracy of a grammarian, was more attentive to fashion his style to purity and roundness of periods, made out of the phraseology he had gleaned from classic writers, than to render his author's meaning in clear and masculine language. After the sight of a specimen or two, Sir Francis did not encourage him to proceed in it. He himself, after his retirement, very much enlarged and corrected the original, and with the assistance of some friends, turned the whole into Latin. This is the edition of 1623; and stands as the first part to his great Instauration of the Sciences.

I have already observed that Cecil, now earl of Salisbury, opposed the progress of our author's fortune under Elizabeth: and he seems to have observed the same conduct towards him in the present reign, till he had fixed himself in the king's confidence so firmly as to be above all fear of a rival. Besides him, Sir Francis Bacon found a violent and lasting enemy in a man of his own profession, Sir Edward Coke; who, with great parts, had many and signal failings. The quarrel betwixt them seems to have been personal: and it lasted to the end of their lives. Coke was jealous of Bacon's reputation in many parts of knowledge: by whom, again, he was envied for the high reputation he had acquired in one; each aiming to be admired, particularly, for that in which the other excelled. This affectation in two extraordinary men has something in it very mean, and is not uncommon. The former was the greatest lawyer of his time; but could be nothing more. If the latter was not so, we can ascribe it only to his aiming at a more exalted character. The universality of his genius could not be confined within one inferior province of learning. If learning thus divided is not so proper to raise a singular name in one way, it serves to enlarge the understanding on every side, and to enlighten it in all it's views. As the name of Sir Edward Coke will occur oftner than once in this history, and as he stood in particular competition to Bacon, I beg leave to dwell a little longer on his character. In his pleadings he was apt to insult over misery. Of this we have a detestable instance in his behaviour to Sir Walter Raleigh. He inveighed against that brave man on his tryal with all the bitterness of cruelty, and in a

style



style of such abandoned railing as bordered almost on fury: I wish I could not add, that this bitterness, this intemperance of tongue, seem to be the genuine effusions of his heart\*. He conversed, it seems, more with books than men; and among the latter, with those only to whom he could dictate and give the law. The consequence of which was, that his conversation had all the air of a lecture; and that he retailed for new, a hundred stories that were either stale or trivial. He affected railery, which was by no means his talent. His wit was often ill aimed, as it was always indelicate and vulgar; the rough horse-play of a pedant. Tho he had accumulated immense wealth, in his profession and by several rich marriages, he was of a sordid avarice; a severe master, a griping landlord; in prosperity insolent, dejected and fawning in adversity: the same poorness of spirit influencing his behaviour in both conditions. One example of this may serve in place of several: After his disgrace, he submissively courted Buckingham's brother to a match with his daughter: in the height of his favor, he had rejected the same proposal with scorn. His profound skill in the common law has been universally allowed: and to this we cannot have a more unquestionable witness than Sir Francis Bacon; one every way fit to judge, and an enemy. He was raised to be Chief Justice of the Common Pleas in 1606, and of the King's Bench in 1613. On the bench he was above corruption: and had this saying frequently in his mouth, that a judge should neither give nor take a bribe. In the case of Peacham, in the business of Commendams, he behaved himself with the honesty and firmness of one who knew that a judge ought neither to be flattered nor menaced out of his integrity. Towards the latter part of his life, he struck in with the country party in parliament, and stood in the breach against the arbitrary measures of James and Charles. He died in the reign of the latter, aged 88 years.

At length Sir Francis Bacon obtained the place he had so long expected: and in 1607 was declared Solicitor General. This preferment was the effect of many letters and much instance on his part, to the earl of Salisbury, the lord chancellor Egerton, and the king himself. Neither do I find that he was ever promoted to any post without repeated and earnest application to ministers and favorites: a reflection that may serve at once to mortify, and instruct an ambitious man of parts.

James had, from the beginning of his reign, passionately desired an union of Scotland and England: but his unreasonable partiality to the former, reckoning it as an equal half of the island, rendered the design abortive. Tho Sir Francis Bacon labored this argument with all the arts of wit and reason, his eloquence, powerful as it was, had no effect on the house of commons. The parliament even shewed itself averse to this union, in proportion as the court appeared zealous for it. The new sovereign's conduct had alarmed them. They saw, that, with a strong disposition to be profuse, he was absolutely in the power of favorites; and that some of the least valuable among his subjects were most in his favor. They saw farther, that he began already to propagate maxims of government destructive to liberty, and inconsistent with the whole tenor of the constitution. These things filled observing men with apprehensions for the future, which unhappily were but too well founded. The whole sum of his politics, both now and afterwards, was to disaste and alienate his subjects at home; to dishonor both himself and them abroad. It was a reign of embassies and negotiations, alike fruitless and expensive: a reign of favorites and proclamations, of idle amusements and arbitrary impositions. It was besides the great era of flattery. The ancient national simplicity of manners which ever accompanies magnanimity, and manly freedom of speech the noble effect of both, were now in a great measure lost; altered and effeminated into prostitute adulation and servile homage. This was become the fashionable language among the clergy as

\*The offices of Attorney and Solicitor General have been rocks upon which many aspiring Lawyers have made shipwreck of their virtue and human nature. Some of those gentlemen have acted at the bar as if they thought themselves, by the duty of their places, absolved from all the obligations of truth, honor, and decency. But their names are upon record, and will be transmitted to after-ages with those characters of reproach and abhorrence that are due to the worst sort of murderers; those that murder under the sanction of justice.



well as laity; and James heard himself daily addressed to, by the titles of sacred and divine: titles which discover the meanness rather than the dignity of human nature; and which, applied to him, were glaringly ridiculous. He had not one princely quality. The arts of governing a kingdom in peace he either did not, or would not understand: and his horror of war was constitutional and unquerable. It may therefore seem unaccountable that a king of this temper should treat his parliaments with more haughtiness than any of his predecessors had ever done. But he had been told that England was neither to be exhausted nor provoked: and his actions shewed that he believed so, according to the letter. The truth is, that as pusillanimity will talk bigger on some occasions than true valor on any; he meant to make himself formidable to his people, that they might not discover how much he was afraid of them.

Tho he did not succeed in the union of the kingdoms, he found his judges, in an affair of a similar kind, more complaisant than the great council of the nation had been: I mean the naturalization of all Scotsmen born since his accession to the throne of England. This was adjudged by Sir Edward Coke in the great case of Calvin; as it had been argued at large before all the judges by Sir Francis Bacon. The affair is now no longer of importance to either kingdom: but one assertion of our author, on that occasion, ought not to be forgot. He roundly affirms, that monarchies do not subsist like other governments, by a precedent law; and that submission to them is grounded upon nature.

In 1610 he published another treatise, entitled, *Of the Wisdom of the Ancients*. This work bears the same stamp of an original and inventive genius with his other performances. Resolving not to tread in the steps of those who had gone before him, men, according to his own expression, not learned beyond certain common places; he strikes out a new tract for himself, and enters into the most secret recesses of this wild and shadowy region; so as to appear new on a known and beaten subject. Upon the whole, if we cannot bring ourselves readily to believe that there is all the physical, moral, and political meaning veiled under those fables of antiquity, which he has discovered in them, we must own that it required no common penetration to be mistaken with so great an appearance of probability on his side. Tho it still remains doubtful whether the ancients were so knowing as he attempts to shew they were, the variety and depth of his own knowledge are, in that very attempt, unquestionable.

Hobart being advanced to the place of Chief Justice of the Common Pleas, Sir Francis Bacon succeeded him as Attorney General in 1613; about three months after the death of his kinsman and enemy the lord treasurer Salisbury: a minister fertile in expedients for supplying his master's wants, and well acquainted with the temper of England: a man of dexterity, craft, and intrigue, rather than a great man. The office that Bacon now entered upon was of exorbitant profit for that age. He owns, in one of his letters to the king, that it was worth to him 6000 l. a year; and his employment of register to the Star-chamber, which I mentioned above, now brought him in 1600 l. a year more. By what fatality was it that so extraordinary a man did not add to his other virtues that of a reasonable oeconomy? Had he done so, it had preserved him from one transcendent fault: and the other blemishes on his moral name had been lost in the brightness of his intellectual qualities. But he was remarkably subject to the same weakness that so much dishonored his master. His dependants had him wholly in their power, and squandered his fortune away, shamefully and without measure. In a private family, this begot disorder, necessity, corruption: and all England beheld, from the same management in administering the public, the same effects; only more felt and fatal, as they were universal.

It was not however till the year 1611 that James abandoned himself to one sole favorite. About that time was brought to court Robert Car a Scotsman, then in the first bloom of his youth, and of distinguished beauty; by which he at once engaged the king's attention, and in a little while engrossed all his affection. As he was wholly illiterate, James himself would needs be his preceptor: and it must have been a scene altogether new and ridiculous, to see the sovereign of three kingdoms daily instructing, in the first elements of grammar, the man

Case of the  
*Poss. Hall*,  
Vol. II.  
p. 153.

An. 1610.

An. 1613.

who



# L O R D C H A N C E L L O R B A C O N .

who was shortly after to govern those kingdoms. In his bounty to this stripling, he observed no other measure but that of his passion, which was as extreme as it seemed unaccountable. Car, in four or five years of favor, from a mere adventurer was raised to be earl of Somerset: and amassed an enormous estate brought to

Truth  
to  
An. 1613.  
p. 89.

of nineteen thousand pounds a year in land; besides plate, money, and jewels light, p. 89. to the amount of two hundred thousand pounds more. And yet he deserves a place in history, only for his scandalous amour with the countess of Essex; for procuring her to be divorced from her husband, and for combining with her to poison his friend, who had dissuaded him from that ill step. The fate of Sir Thomas Overbury; the dark and dreadful scene of guilt that ushered it in; and the part those two great criminals acted in that tragedy, are recounted by all historians. Tho the horrible transaction lay yet wrapt up in darkness, and was not discovered till two years after, remorse and the upbraidings of conscience pursued Somerset every where. Through all the splendor of fortune and favor, the trouble of his mind was visible in his countenance, in his whole deportment. He grew by degrees to neglect his person and dress; his sprightliness of temper left him: and his conversation, from being gay and entertaining, was become cold, serious, and gloomy. This alteration in him was quickly followed by a change in the king's affections; which had no deeper or more solid foundation than these external and slight accomplishments. The courtiers, whom envy and interest render extremely sharp-sighted, quickly discovered this change, and improved it. Luckily for their designs, there now appeared at court another young man, fitted by nature to draw the curiosity of James, and to supplant the earl of Somerset in his favor. This was the famous George Villiers, the younger son of a good family in Leicestershire; afterwards duke of Buckingham. As the surprising elevation of this youth had a particular influence on the future fortunes, and even on the fall, of Sir Francis Bacon, his character will deserve a place at large in this history.

An. 1615.  
Coke.  
An. 1613.  
p. 79.

His mother, who could not give him a fortune, bestowed on him such an education as might enable him to acquire one, especially in a court like this. The advantages he owed to nature, such as a handsome face, a body exactly proportioned, an ease and gracefulness in his motions, she had taken care to improve with that elegance of manners, that artificial politeness, and skill of excelling in trifles, which are the last finishings of a French education. In a word, he was just returned from his travels, and accomplished in all those agreeable and frivolous arts, which were a certain recommendation to the favor of James. The earls of Pembroke and Bedford, with some other lords who were secret enemies to Somerset, after dressing out this youth with a studied exactness, placed him to advantage in the king's eye, at a comedy. That monarch was immediately smitten with his face, air, and appearance; which yet he endeavoured for some time to conceal. Nay he carried this dissimulation so far, that he would needs be solicited by the queen to receive Villiers into his bosom: imagining the world would be thus deceived into a belief that he rather followed her advice, in this matter, than his own inclination. Such was the kingcraft on which he so highly valued himself. The queen was not easily prevailed with to take this step; of which she foresaw all the consequences. At last, however, she yielded to the archbishop's importunity; telling him at the same time, that those who labored most to promote Villiers might be the first to feel his ingratitude. Upon this he was immediately knighted, and declared Gentleman of the bed-chamber: the herd of courtiers rivalling each other in their offers of friendship and service to him. Some of them even descended to undertake his quarrels, and brave such as were still in Somerset's interest.

Rushworth of  
Abbot, ch. 1.  
Weldon,  
p. 84.

Among those who courted the rising favorite, none was more zealous than Sir Francis Bacon; as none was able to serve him more nobly, or more usefully. Villiers had at this time sense enough to feel his inexperience in business, and therefore had recourse to our author for his advice: which he gave him fully in a letter, still extant among his works; written with so superior a judgment Bacon, Vol. and so much honest freedom, that it does honor equally to his head and heart. J. p. 712. He has ranged his thoughts under seven or eight principal topics of consideration, and

Vol. I.

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and



and entered into an accurate detail of what a minister ought to know and practise. In another letter to him, he has these remarkable words: "It is now time that you should refer your actions chiefly to the good of your sovereign, and your country. It is the life of a beast always to eat, and never to exercise." In this dedication of yourself to the public, I recommend to you principally that which I think was never done since I was born, and which, not done, hath bred almost a wilderness and solitude in the king's service: which is, that you countenance, and encourage, and advance able and virtuous men in all kinds, degrees, and professions." This excellent advice the favorite received with thankfulness; and neglected.

An. 1616.

Wilson, p. 81.

May 24, 25.  
State-tryals,  
Vol. I.  
p. 334, 348.

Tho the king's passion was now wholly diverted upon a new object, he still affected to treat Somerset with kindness and distinction; even after the discovery of his being an accomplice in poisoning Sir Thomas Overbury had rendered this dissimulation not only mean but criminal. Yet he continued it to the last, embracing with fondness the man whom he had secretly ordered to be arrested; and entreating him to hasten his return, when he believed he should never see him more. In such trifles he was fond to exert his talent of political management. The earl's unhappy passion for the young countess of Essex was the source of all his misfortunes, and drew after it the most terrible consequences: ending, as I have already observed, in the murder of his friend; in the ruin of himself, and of her to whom he had treacherously sacrificed that friend. The whole affair is displayed at full length in our author's charges against those two prime agents in that infernal conspiracy. They were both found guilty, sentenced to die, and afterwards pardoned by the king, notwithstanding his solemn imprecations to the contrary, on himself and his posterity.

Certain historians have remarked, that there was something, in the behaviour of Somerset before his trial, singular and mysterious: and that his master likewise seemed to labor under a secret anxiety of mind, equally surprising. The earl, they pretend, said aloud in the Tower, that the King durst not bring him to a trial. Others reject this account as a downright calumny, invented merely to fix a black and cruel imputation on that prince's memory: or affirm at least that it was founded only in popular rumor and malicious conjecture. But that there was more in it than conjecture, may be proved by undoubted authority; by some original letters of Sir Francis Bacon, then Attorney General, and particularly employed in this very affair. Those letters have, I think, escaped the observation of all our writers: I shall therefore quote from them such passages as may serve to throw some light on this dark transaction, tho not enough perhaps to discover the darker motives that influenced the king's and the earl's behaviour in it.

Bacon, Vol.  
II. Letter  
cxxxiii.

Vol. II. Letter  
cxxxvi.

James himself selected certain persons to examine Somerset with all secrecy, and marked out to them the particular articles on which they were to interrogate him. They had withal orders to work upon his obstinate temper by every method of persuasion and terror: to give him now hopes of the king's compassion and mercy; and now to assure him that the evidence was full to convict him, so as there needed neither confession nor supply of examination. Bacon, who was one of them, adds that they found his deportment sober and modest, differing apparently from other times. In another letter he has these remarkable words: "That same little charm which may be secretly infused into Somerset's ear some hours before his trial, was excellently well thought of by his Majesty: only I could wish it a little enlarged; for if it be no more but to spare his blood, he hath a kind of proud humour that may over-work the medicine." All this was to be done with much caution and privacy; for the very serjeants, appointed to manage part of the trial, were not yet in the secret how the king would have it carried on: and therefore Bacon, to cover from them what he knew of the matter, desired that some general heads of direction might be sent to them all. From hence it appears that James shewed an extreme solicitude about the earl's behaviour, and the event of this affair. To what can it be attributed? His affection for Somerset was extinguished: and he lay under the strongest obligations of public honor and justice not to screen, from



from the censure of the law, a man whose guilt was of the most crying enormity. The earl's standing mute, or denying that guilt, especially as the proofs of it were strong and pregnant, could bring no possible imputation on his name. Why then all this dark practice? all these artifices of the persons who examined him, only to make him submit to be tried, and to keep him in due temper during his trial? There is still more. James ordered his Attorney General to fore-cast and put in writing every possible case with regard to the trial, and accompany them with his own opinion on each; that no surprize might happen, but that things duly foreseen might have their directions and remedies in readiness. Accordingly Sir Francis Bacon sent a writing of that purport, on which there are several observations in the king's own hand. I will only quote one passage from it: "All these points of mercy and favor to Somerset are to be understood with this limitation; if he do not, by his contemptuous and insolent carriage at the bar, make himself incapable and unworthy of them." The king's remark in the margin is in these words: "That danger is well to be understood, lest he upon the one part commit unpardonable errors; and I on the other tried for any offence against the king; but for the barbarous murder of a private man and his friend. What then means the contemptuous carriage that is so much apprehended? What are the unpardonable errors it may lead him to only for giving him up to a fair and equal trial, to a trial by many circumstances rendered inevitable; that would, in the opinion of all mankind, only aggravate his crime, and furnish a new motive to that master for letting the sentence of justice pass upon him in all it's rigor. After these particulars, I may venture to mention a fact related by Sir Antony Weldon, who says, that when the lieutenant of the Tower, Sir George More, came and told the earl, he must prepare himself for his trial on the morrow, he absolutely refused to appear unless they dragged him to it by violence; adding, that the king durst not bring him to trial. Astonished at such rash and dangerous expressions, the lieutenant, tho it was then midnight, went and demanded an audience of the king, to inform him of what had passed. James, upon hearing his story, burst into a passion of tears, and intreated More to use his utmost skill upon his prisoner and soothe him, by whatever means, into proper temper and submission. This More undertook to do, and by a stratagem effected it. Weldon affirms he had this story from the lieutenant's own mouth: and tho he is a partial writer, and indulges himself in a humor of licentious scandal, the authentic vouchers I have produced render his anecdote not improbable. Other circumstances, mentioned by those who have professedly written of this reign, I therefore omit, and shall only add, that there is in the Cabala a letter to king James from Somerset after his condemnation, Cabala, of a very peculiar turn. He desires that his estate may be continued to him in-  
P. 204.  
 cation: and through the affected obscurity of some expressions, one may discover, that there was an important secret in his keeping, of which the king dreaded a discovery. The issue was, that James continued to him a pension of four thousand pounds a year, as long as he lived.  
 Prince Henry died in the year 1612, universally lamented. His excellent qualities had endeared him to the love and expectations of all England. Germanicus was not more the darling of the Roman people: and the untimely death of both those princes was universally believed to have been procured by poison. He had expressed, on all occasions, an abhorrence of minions, and an utter contempt of Somerset: he had even declared a firm resolution, to humble both him and the family into which he was allied, if ever he came to reign. Whether the unaccountable transaction I have been relating has any reference to the death of this amiable prince, or whether it does not point rather to an affair of a very different nature, the reader is left to determine.  
 Villiers, now without a rival in the king's affections, was every day receiving new proofs of his bounty; at the same time that he more than shared with him the exercise of his authority. In the course of a few years he was made Gen-  
Letter cxxxv.



Stleman of the bed-chamber, Master of the horse, Knight of the garter, earl, marquis and duke of Buckingham, Chief justice in eyre of all the forests, and lord High Admiral of England. One of those prodigies of fortune, who rise now and then upon the world, as the vulgar imagine of comets, at once to astonish and scourge it: a signal instance of the wantonness of sovereign power, and how far it may insult human kind in exalting and adorning what it should neglect or condemn. He drew up after him an obscure kindred, numerous and indigent, bestowed on them places of trust and profit, married them into the noblest families, and graced them all with dignities, which were to be supported at the common expence of a whole people; to whom if any one of them was merely harmless, it was his utmost praise. After having read, not only what the enemies of this favorite have said against him, but all that his partisans have alledged on his behalf, I do not find, during the whole time of his influence under two reigns, an influence supreme and unbounded, that he ever projected one scheme for the benefit of his country, or ever executed one undertaking to it's honor; the only great criterion by which we ought to judge those men that administer the public. The breaking off the Spanish match at last was solely a sacrifice to his own vanity and resentment. On the caprice of this youth, however, the first and ablest men in the kingdom were to depend entirely, for their access at court, for their advancement, for any opportunity of being able to serve their country and their sovereign. Sir Francis Bacon was sensible of this, and courted his friendship with a particular application. But he must have felt all the servitude and disagreeableness of his situation, when, to be well with the king, he found it necessary to turn steward to the estate newly bestowed on this young man; to study the ways and means of improving his lands, and of rendering his places most profitable to him. It is true he found his account in this service; as it proved the surest means of his own preferment: but, to a great and worthy mind, preferment so meanly obtained is disgrace, only a little disguised and gilded over.

Cabala,  
P. 219.

Bacon, Vol.  
II. Letter  
CLXIII.

Vol. II. Let<sup>r</sup>  
ter CXIV.

Pety's Place-  
in Parliam.  
P. 174.

The lord chancellor Egerton, broken with age and infirmities, had often petitioned the king to be dismissed from his laborious employment. He was now seventy-seven years old, and had presided in the court of chancery from the year 1596, with an unblemished reputation as a judge in private cases; but his public conduct had been always framed to the directions of the court with an obsequiousness, of dangerous example in one, who held so great and important a trust. To this high dignity Sir Francis Bacon privately aspired: and as it was the utmost scope of his ambition, he had aimed all his endeavours in the king's service to merit it at his hands. He took care, at the same time, to strengthen his pretensions by the credit of Buckingham. His ambition even made him descend to artifices, that are as common in courts, as they are mean and unwarrantable; for he endeavoured to ruin in the king's good opinion such men as the voice of the public might probably design to the same office, and whom he therefore considered as his rivals. He was particularly jealous of Sir Edward Coke, and represented him as one who abounded in his own sense; one who affected popularity, and likely to court the good will of the nation at the hazard of the prerogative. For himself, he placed his great merit in obedience and submission; in the interest he had among the Commons, and in being able to influence the lower House of parliament: a service which he magnifies as more important in a chancellor, than to judge in equity between party and party. This opinion of his own popularity in the nation was not groundless. The parliament that met in 1614, tho extremely out of humor with the ministers in general, distinguished him by an uncommon mark of favor and confidence. An objection having been started in the house of commons, that a seat there was incompatible with the office of Attorney General, which required his frequent attendance in the upper house: the commons, from their particular regard for Sir Francis Bacon, and for that time only, over-ruled the objection; and he was accordingly allowed to take his place among them. If I observe further, that the King raised him to the dignity of a privy counsellor while he was still in this very office, it will be instead of many instances to shew, with what an address-



ful prudence he steered his course betwixt the court and the nation. He was thus favored by a prince, who exacted from all his servants an implicit submission to his maxims of government: he gave no umbrage to a parliament whom these maxims had rendered jealous of the prince, and of almost every man in his favor. But to return.

These insinuations had their desired effect. Upon the chancellor's voluntary resignation of the seals, they were given to Sir Francis Bacon, with the title of lord Keeper, on the seventh of March 1617. To what interest he more particularly owed this promotion we may learn from his letter of acknowledgment, written that very day, to the earl of Buckingham.

A few days after he had the seals delivered to him, the king went a progress into Scotland, carrying with him the favorite, who was likewise his prime minister: for to him all business, public or private, was addressed; and according to his fancy, for the most part determined. The great affair that employed the deliberations of his council about this time, and had a fatal influence on his conduct ever after, was the marriage of prince Charles with the Infanta of Spain. In this resolution, tho contrary to all the rules of good policy, he persisted for seven years together; against his own interest, against the universal voice of his people; only to procure the imaginary honor of an alliance with a crowned head; for all other alliances he thought below his dignity. Sir Francis Bacon, who saw through the vanity and danger of this intention, but who wanted resolution to be greatly honest, contented himself with insinuating softly, that it would be necessary to have the council unanimous in their suffrage on the occasion, whatever might be their private sentiments. This hint was not sufficient to open the king's eyes. On the contrary, he run blindfold into the snare that Gundamor was spreading for him. That famous statesman, as much by his buffooneries as by his talent for intrigue, had gained an absolute ascendant over James, leading him on from error to error; till in the end he made him sacrifice his conscience to the pope, and his honor to the resentments of Philip, in the murder of his bravest subject Sir Walter Raleigh; the last terror of Spain, and the only surviving favorite of queen Elizabeth. The Dutch too made advantage of the king's weakness and necessities. As the cautionary towns were still in the hands of the English, the States were under some apprehensions that the Spanish ministry might prevail upon James, who could not possibly conceal his fondness for the match in treaty, to put those important places into their power. They knew at the same time that his treasury was exhausted, and that his courtiers were insatiable. To bring their purpose about, they ceased all at once to pay the English who garrisoned those places, as by their treaties they were obliged to do. Complaint being made of this to the Dutch envoy at London, he insinuated, as from himself, to some of the ministers, that if king James would desire it of the States, they would, out of consideration for him, take up money at exorbitant interest, and in one payment discharge the whole debt due to the crown of England. This stratagem took effect. James wrote to the States; and the matter was immediately put into negotiation. The pensionary Barneveldt, whom they sent over, conducted the affair with so much address, that the king agreed to deliver up the cautionary towns for less than three millions of florins, in lieu of eight millions they had engaged to pay Elizabeth, besides the interest that had been running on for eighteen years. Such are the events of this reign; fit only to depress the writer, and disaste the reader.

During the king's absence in Scotland there happened an affair, otherwise of small importance, but as it lets us into the true genius of those times, and serves to shew in what miserable subjection the favorite held all those who were in public employments. He was upon the point of ruining Sir Francis Bacon, the person he had just contributed to raise; not for any error or negligence in their master's service, but merely for an opinion given in a thing that only regarded his own family. Indeed such was the levity, such the insolence of his power, that the capricious removal of men from their places, became the prime distinction of his thirteen years favor: which, as bishop Hacket observes, was like a sweeping flood, that at every spring-tide takes from one land, to cast what it has



THE LIFE OF THE

Vol. II.  
Letter cxii.

Bacon, Vol.  
II. Letter  
cxxxv, cxlii.

Letter cxlii,  
cxlv.

Bacon, Vol.  
II. Letter  
cxlv.

Letter  
clxxvii,  
clxxviii.

taken upon another. The affair was this. The year before, my lord Coke had been removed from his place of Chief Justice and disgraced: the court having found him, in several instances, no friend to arbitrary will and pleasure, or to the prerogative, as it was called; but resolutely bent to maintain the integrity and honor of his post. One Peacham had been accused of inserting in a sermon several passages accounted treasonable, for it seems they reflected on the ministry; but in a sermon never preached, nor ever intended to be made public. The king, who was beyond measure jealous on this head, fearing the man might either be acquitted on his trial, or not condemned to a capital punishment, had ordered his attorney-general Bacon to sound the judges before hand, and gather their opinions secretly and apart. My lord Coke obstinately refused to declare his; looking on this auricular taking of opinions, for so he named it, as not according to the custom of the realm, but new and of pernicious tendency. About the same time he had determined a cause at common law, The plaintiff, who thought himself injured, would not abide by his decision, but applied to chancery for relief: where the defendant refused to appear, disclaiming the authority of that court; in which he was supported by the Chief Justice, who threatened the Chancellor with a premunire, grounded on a statute made 27th Ed. III. for thus invading the limits of his jurisdiction. The king, who thought his prerogative struck at anew in this attack on the court of his absolute power, as Bacon styles it, had the matter examined before the council; who condemned the Chief Justice for what he had done, and obliged him to make a submission on his knees. But what completed the distaste taken at him, was his behaviour in a cause of the bishop of Litchfield and Coventry, to whom the king had granted a vacant church in *commendam*: Serjeant Chiborne, who was counsel against the bishop, in arguing the case had maintained several positions, reckoned prejudicial and derogatory to the king's supreme and imperial power, which was affirmed to be distinct from, and of a higher nature than his ordinary authority. Informed of this, James, by his attorney-general Bacon, ordered the judges to stay further proceedings in that business, till they had consulted with him. The judges assembled, and unanimously agreed, that they could not obey this order; that the letter they had received was contrary to law; that, by their oath and the duty of their places, they were not to delay justice; that they had therefore proceeded in the cause at the time fixed: and of this they certified the king in a writing under all their hands. Upon this remonstrance, he writ them an angry letter, and peremptorily commanded them to stay all proceedings, till his return to London. They were then summoned before the council, and sharply reprimanded for suffering the popular lawyers to question his prerogative, which was represented as sacred and transcendent, not to be handled or mentioned in vulgar argument. At last raising his voice, to frighten them into submission, he put this question to them severally: "If, at any time, in a case depending before the judges, he conceived it to concern him either in profit or power, and thereupon required to consult with them, and that they should stay proceedings in the mean time; whether they ought not to stay them accordingly?" They all, the Chief Justice only excepted, acknowledged it their duty to do so. His answer deserves to be for ever remembered: "That when such a case happened, he would do that which should be fit for a judge to do."

Yet this great lawyer, who had the honest courage to resist the king to his face, wanted that independance of mind which alone enables a man to bear solitude, and an acquaintance with himself. His disgrace, which reflected more honor on him than all his preferments, he was unable to support: and therefore he soon after sued to be reinstated in the king's favor. To recover it, he meanly enough courted the favorite with an offer, which he would not hear of, when it was formerly made to him. While in power, he had refused to give his daughter in marriage to Sir John Villiers, not without marks of disrespect: he now submissively entreated the same person to honor him with his alliance: and employed Secretary Winwood to inform the earl of Buckingham of his on extreme concern for what had passed with regard to the earl's brother; that he



he now passionately wished the treaty might be renewed and accomplished; adding, that they should make their own terms of settlement, if his proposal was accepted. As the young lady was not only a celebrated beauty, but a great fortune, the person most interested made no difficulty to close with this proposal: and his mother recommended it to her second son with warmth. This alarmed the lord keeper Bacon. Ever jealous of Coke's reputation, and at odds with him, he dreaded his alliance with so powerful a family. His imagination suggested to him all the danger that threatened his present and future fortunes from this union: and he could not forget that he had lately treated his antagonist with a freedom that rather insulted than admonished him. These apprehensions made him cast about how to defeat the intended match, by raising such objections to it, as might touch the king and his favorite in point of public honor and advantage. His letters to both, on that occasion, are written with the perplexity of a man who fears something he is unwilling to own; which yet his prudence passes over with a seeming unconcern, to enlarge only upon considerations that regard those whom he would be thought to serve. But this management proved ineffectual. It was resented by the earl of Buckingham, and checked by a rough answer from the king. The lady Compton too, informed of the part he was acting, gave a loose to her tongue, and raised at him with a bitterness natural to women when they are thwarted in any favorite pursuit of interest or passion. Having thus, to prevent a distant and uncertain danger, involved himself in one that was real and immediate, he made no scruple to change sides at once; to go directly against his former opinion; and to offer unmasked his interest in the young lady's mother for promoting the match he had just been labouring to disappoint. On such trivial accidents do the fortunes of ministers depend: and to such little and shameful arts is ambition often obliged to stoop. Nor even thus did he presently regain his credit with Buckingham. The family continued to load him with reproaches: and he remained long under that agony of heart which an aspiring man must feel, when his power and dignity are at the mercy of a king's minion, young, and giddy with his elevation, and who thinks himself offended. They were however reconciled at last; and their friendship, if obsequiousness in one to all the humors of the other deserves the name of friendship, continued without interruption for some years: while Buckingham went on daily to place and displace the great officers of the crown, as wantonness of fancy, or anger, or interest led him; to recommend or discountenance every private person who had a suit depending in any court, just as he was influenced; to authorize and protect every illegal project, that could serve most speedily to enrich himself or his kindred. In a word he became formidable even to the master who had raised him from the dust, and who should have still awed him by his authority: and this amidst the dissipation of a life, given up to idle amusements, or sullied with criminal pleasures.

In the beginning of 1619, Sir Francis Bacon was created lord high chancellor of England, and shortly after baron of Verulam; which title he exchanged the year following, for that of viscount St. Albans. Such events in his life as these may be passed over slightly: he was so great a man, that external honors could add no lustre to his name. Indeed had they been the immediate reward of those nobler services he had done, and was still meditating to do his country, they might deserve more particular notice, for the sake of him who bestowed them.

Neither the weight and variety of business, nor the pomps of a court, could divert his attention from the study of philosophy. Those were his avocations and encumbrances; this was his beloved employment, and almost the only pleasure in which he indulged his freer and better hours. He gave to the public in 1620 his *Novum Organon*, as a second part to his grand Instauration of the Sciences: a work that for twelve years together he had been methodizing, altering, polishing; till he had labored the whole into a series of aphorisms, as it now appears. Of all his writings this seems to have undergone the strictest revision, and to be finished with the severest judgment. Indeed the form into

Letter  
cxxxix, to  
L. Coke.

Letter  
cxxxix.

An. 1619.

An. 1620.

which



which it is cast admits of nothing foreign, of nothing merely ornamental. The lights and embellishments of imagination, the grace and harmony of style, are rejected here, as beauties either superfluous, or of an inferior nature. The author has besides made use of several terms in a new and peculiar sense, which may have discouraged some readers, as it has made others imagine them equally unintelligible with the horrors of a vacuum, the quiddities, and substantial forms, of the philosophy which he attempted to discredit; and therefore, of all his writings it has been the least read, or understood. It was intended as a more useful, a more extensive logic than the world had yet been acquainted with: an art not contentant about syllogisms, and modes of argumentation, that may be serviceable sometimes in arranging truths already known, or in detecting fallacies that lie concealed among our own reasonings and those of other men; but an art inventive of arts: productive of new discoveries, real, important, and of general use to human life. This he proposed, by turning our attention from notions to things; from those subtle and frivolous speculations that dazzle, not enlighten, the understanding, to a sober and sensible investigation of the laws and powers of nature, in a way becoming sages who make truth and information the sole aim of their enquiries. In order to this, his first endeavour was to weed out of the mind such errors as naturally grow in it, or have been planted there by education, and cherished by the influence of men, whose writings had long claimed a right of prescription to rule and mislead mankind. To a mind thus prepared for instruction, he proposes the second and scientific part of his scheme, the true method of interpreting nature, by fact and observation; by sound and genuine induction, widely differing from that puerile art which till then had solely prevailed in philosophy. His requires a sufficient, an accurate collection of instances, gathered with sagacity and recorded with impartial plainness, on both sides of the question: from which, after viewing them in all possible lights, to be sure that no contradictory instances can be brought, some portion of useful truth, leading on to further discoveries, may be at last fairly deduced. In this way, experiments and reasonings grow up together, to support and illustrate each other mutually, in every part of science.

An. 1621.

As we are now approaching towards the most memorable event of our author's public life, which ended in a melancholy reverse of his fortune and honor, it will be necessary to trace, step by step, the causes that produced it: especially as the affair has not been hitherto considered in the point of view that renders it most interesting and instructive. It will, I believe, appear with evidence, that, whatever his crimes might be, he was sacrificed to the safety of another, far more criminal than himself: and that this was the act of an ill-judging master, with whom it was a greater merit to be amusing in any degree, than to be serviceable in the greatest.

Among the weaknesses of king James, his vanity was the most pernicious, to his own family, and to the nation in general. He placed an infinite value on certain chimerical advantages that met in his person; on that inherent right by which, he pretended, the crown of England was devolved to him; on his long acquaintance with the prime mysteries of government, and on his uncommon accomplishments in learning. His favorite maxim was, that he who knows not how to dissemble, knows not how to reign: but he seems not to have heard of a second maxim, without which the first cannot be successful, even for a time; to conceal every appearance of cunning, and to deceive under the guise of candor and good faith. He, on the contrary, shewed his whole game at once, to his own subjects and to foreigners alike: so that in his attempts upon the former, in his negotiations with the latter, this Solomon was the only dupe. A great share of learning he certainly had, but of learning that a king ought not to be acquainted with; the very refuse of the schools, which served for little else but to furnish him with an impertinent fluency, on every subject: and he indulged himself in the sovereign pedantry of setting it to shew, on every occasion. On all these heads, he was extolled without measure, by the most pestilent of flatterers, grave and reverend ecclesiastics: for which, and because they encouraged him in an unprinciply application of his talent, he, on many



occasions, made his power the mean instrument to gratify their passions and lust of dominion. They, in return, found out for him a title antecedent and superior to human laws, even a divine right of being weak or wicked, without controul. And this doctrine, horrible as it is, they dared to derive from Scripture : where if it could be found, which to affirm were blasphemy, it would be the triumph of infidelity, and demonstration that those sacred writings were inspired, not by God, but by some being, his opposite and the enemy of all goodness. This doctrine, meeting with his own perverted habits of thinking, made king James look upon his subjects as slaves ; upon his parliaments as usurpers of a power to which they had no right, or at best a precarious one : and he had now, for seven years together, affected to govern without them ; to set up an interest separate from that of his people, and to supply his wants by all ways and means, but such as the constitution prescribed. These methods were suggested to him by the worst enemies of the commonwealth, the tribe of projectors and monopolists : miscreants who sheltered themselves under the name and influence of Buckingham, and who repaid his protection extravagantly, at the expence of a people whom they were grinding and devouring. His mother too, now created a countess in her own right, a woman born for mischief, of a meddling spirit and insatiably greedy, was deep in the guilt of these transactions ; forwarding every bad project that brought her in money ; and, by the mighty power she had over her son, succeeding in every scandalous job she undertook.

Under an administration like this, when England was in effect governed by a dissolute youth, himself in the hands of an intriguing, rapacious woman, it cannot be surprizing that the people were vexed and plundered by illegal patents, by monopolies, by other mischievous projects, calculated to enrich a few, and to ruin thousands. To all these patents, however procured, the chancellor had readily, almost implicitly, affixed the seal, as the mere creature of Buckingham : or if he ever ventured to insinuate that any of them were contrary to law, his remonstrance was too fearful and unsupported to produce any effect. This is the great stain on his character, that he deserted, or neglected, the post of honor where providence had placed him, on the frontier, if I may so speak, betwixt Prerogative and Liberty ; that, if he did not encourage, he at least connived at, the invasions that were every day making into the latter. Yet this was against his inclination, as well as against his better sense of things ; for as he knew well that his master's true interest lay in a good understanding with his people, he had often advised him to call frequent parliaments, and to throw himself on the affections of the nation for the support of his government. Tho such advice was repugnant to all the maxims by which that monarch wished to establish his power ; tho he had resolved to lay parliaments aside for ever, as daring encroachers upon his prerogative, who made themselves greater and their prince less than became either : yet he was now prevailed upon, to meet the two houses once more. Indeed the exigency of his affairs rendered it necessary. His subjects, it is true, were harassed and pillaged ; but he was still in extreme want of money : those wretches, to whom he delegated his authority, leaving to him little else besides the public hatred, occasioned by their rapines committed in his name. Add to this, that the juncture appeared favorable for obtaining large supplies from the commons. As the whole body of the nation expressed an uncommon zeal for recovering the Palatinate to his unfortunate son-in-law, he had reason to expect, that, on assurance of his entering heartily into a war, they would vote him considerable aids of money ; which he might afterwards divert, as he actually did, to other purposes that better suited his genius and notions.

A parliament was accordingly summoned : and it met on the 20th of January 1621. The king was not wholly mistaken in his conjecture : for the commons immediately voted him two entire subsidies ; but went at the same time upon a strict enquiry into those arbitrary impositions, that, in a period of seven years, were become insupportable to the people. Among the monopolies, in particular, there were three of flagrant injustice and oppression. Certain persons had obtained patents from the king, which empowered them to set an annual



fine on such as kept inns, or alehouses throughout England. Without a licence from the patentees, no man could hold either: and whoever would not readily pay the sum, at which those low instruments of power thought fit to excise him, was sure of being harassed and plundered, or thrown into a jail. This proved a fruitful source of vexations, and fell heavy on the poorer sort. The third was yet more enormous; a patent for the sole making and vending of gold and silver lace, which had been granted to two infamous tools of the favorite, Mompeillon and Michel; the Dudley and Empson of that age. The first a man of fortune, whose sole ambition was to make himself considered, tho but by his crimes: the other an obscure justice of the peace, who, in a remote quarter of the town, picked up a sordid maintenance from the stewards. They had, it seems, shamefully abused the power their exclusive patent gave them, by putting off, for true, great quantities of counterfeit lace, wrought up and embellished with copper, or other materials of a poisonous nature: and whoever presumed to make or sell any other was cruelly punished, by fine and imprisonment. In these outrages they were the more daring, because Sir Edward Villiers, half-brother to the favorite, was associated into their patent, tho not named in it. These, with many other grievances, were laid open in parliament, and severely censured. But the commons did not stop here. They were for carrying their search up to the prime cause of all grievances, in order to discover by whose influence the several patents had been procured, and how they had passed the seals. Complaints were brought into the house, about the same time, of corrupt practices even in the high court of Equity. This alarmed the king for his chancellor, and still more for his minion: as private intimations had been sent to Buckingham, of a severe scrutiny that was making into all his management, and of frequent meetings that were held, with great secrecy, by certain members of the lower house; in order to fix on him the guilt of whatever was most unjustifiable and oppressive. Buckingham's creatures, anxious and alarmed at this intelligence, persuaded him, that he could secure impunity to himself and them, only by bringing his master forthwith to dissolve the parliament: and James had certainly been frightened into that rash and hazardous step, but for the sober remonstrances of Williams dean of Westminster. That politic courtier advised him to cancel at once, by proclamation, all monopolies and vexatious grants; to sacrifice inferior criminals to the public resentment, and to soothe the parliament with an assurance that this reformation was first proposed by his favorite, on finding how much he had been abused by designing and knavish projectors. This counsel the king resolved to follow; but it did not wholly free him from the perplexity he was under. The chancellor, whom his interest led him to preserve, was openly accused of corruption: the favorite, whom his tenderness could not resign, was secretly, and therefore more dangerously attacked; as the encourager, if not the author, of whatever was deemed most illegal and oppressive. To save both, at this juncture, would be impossible: and he found he must either part with the object of his inclinations, or with the oracle of his counsels. How such a prince would determine, is easy to guess. His passion prevailed over his reason: and my lord St. Albans was made the scape-goat of Buckingham. He was even obliged to abandon his defence. As he had gained universal esteem by his learning; and as his eloquence was equal to his parts, superior and commanding, the king would not hazard his appearing before the lords to plead his own cause. In the course of such an enquiry, he might have diverted the public odium from himself, by laying open the long series of bad administration to which he had been privy; the many illegal patents he had been compelled to pass: and all this came full home to Buckingham, the great object of national vengeance. The faults too, imputed to himself, he might have extenuated so far as to procure a great mitigation of the censure, that must otherwise fall upon him in it's utmost rigor. All this he foresaw and felt; but the king absolutely commanded him not to be present at his trial: promising on his royal word, to screen him in the last determination; or if that could not be, to reward him afterwards with ample retribution of protection and favor. He obeyed, and was undone.

Hacker, p. 49.  
Wilson.

Cabala,  
Letter II.

Bushell's  
Abridg. Post.  
p. 2, 3.



On the twelfth of March, a committee for inspecting into the abuses of the courts of justice was appointed by the commons. Some days after, Sir Robert Philips, a gentleman eminent for public spirit and humanity, reported from thence

*State Trials, Vol. I. p. 353, etc.*

to the house, that complaints had been brought before them, by two persons, against the lord Chancellor, for bribery and corruption. This report he made, not only without bitterness, but in terms of great regard and tenderness for the accused; moving that the business might be presented to the peers, singly and without exaggeration. At a conference, on the nineteenth, between certain members of both houses, the lords agreed to take the matter into their speedy consideration. As soon as this affair was become the public talk, a new croud of accusers appeared, and charged home the unhappy chancellor with other and flagrant instances of bribery; such persons especially as had courted him with presents, and afterwards received a judgment unfavorable to their expectations: animated more by that disappointment, than by the iniquity of his decisions; for it does not appear that any of his decrees were ever reversed. He was all this while confined to his house by an indisposition, real or pretended: but, if his body was in health, what must have been the condition of his mind, in this interval of suspense and anxiety? a great mind, already self-convicted, yet exquisitely sensible to good fame, which it has long enjoyed, and is upon the point of losing for ever! His reflections, whether he looked back on the past, or forward to the prospect before him, must have been terrible: as they were at the same time inflamed by peculiar circumstances of shame and confusion; that he was now, at the age of sixty-one, falling a victim to the rapine and insolence of his domestics, which he had weakly connived at, rather than to any faults of his own.

On the twenty-sixth of March, the king came to the house of peers; and, in expressions of studied popularity, owned the errors of his government, exclaimed against the patents complained of, frankly gave up to justice the lesser criminals concerned in them: and all this for the sake of his favorite, whom in the end he endeavoured to screen by the poorest reasons imaginable. Indeed, no good reasons could be alledged in defence of him, who was the greatest criminal; and without whose concurrence the wretches in question could not have been guilty. The lords were not imposed upon by this speech: however, thinking it sufficient to have reduced their sovereign to the necessity of an apology, they feigned to be of his opinion. Thus, Buckingham escaped for the present; to accumulate new guilt, and to fall at last, ignobly, by a private hand: after he had been devoted, by the curses of a whole people, and more solemnly still by the denunciations of their representatives. After a recess of three weeks, the house met again: but the weight of their indignation fell singly, and therefore without mercy, on the chancellor. They were not satisfied with his letter of general confession, tho' delivered to them by the prince of Wales; in which he renounced all justification of himself, and sued for no other favor, "but that his penitent submission might be his sentence, and the loss of the seals his punishment." He was obliged to put in a particular answer to every point of his accusation: which he did on the first of May, 1621; acknowledging, in the most explicit words, the corruption charged upon him in twenty-eight several articles, and throwing his cause entirely on the compassion of his judges. His sentence was, "to undergo a fine of forty thousand pounds; to be imprisoned "in the Tower during the king's pleasure; to be for ever incapable of any "office, place, or employment in the commonwealth; and never to sit again "in parliament, or come within the verge of the court." Thus he lost the great privilege of his peerage; a severity unusual except in cases of treason and attainder.

The last article of his charge furnishes matter for much reflection. It alleges, "that he had given way to great exactions in his servants, both in respect of "private seals, and otherwise for sealing injunctions." This indulgence to his domestics, which was certainly extreme, has been generally, and I believe truly, reckoned the principal cause of those irregularities that drew on his disgrace. Liberal in his own temper, or rather profuse beyond the condition of a man who means

*Willon.*

*Bulhel's*

*Abridg. Post.*

*p. 2.*



means to preserve his integrity, he allowed his family in every kind of extravagance: and as many of his retinue were young, dissipated, giddy in the pursuit of pleasure, they squandered without measure, where they were indulged without controul\*. Whether he did not discover this error till it was too late, or whether a soul like his, lost in the greatness and immensity of it's own views, could not attend to that detail of little and disagreeable particulars, which yet oeconomy requires; however that was, to support his ordinary train of living, he fell into corruption himself, and connived at it in his dependents. Thus we behold him, a memorable example of all that is great and exalted, of all that is little and low, in man. Such inconsistencies in our human nature cannot but alarm and terrify even those who are most confirmed in a habit of virtue.

After a short confinement in the Tower, the king restored him to his liberty, and forgave the fine in which the parliament had amerced him. As this fine was very considerable, he managed so as to have it assigned over to some of his friends, under the notion of being his creditors: and we find Williams, his successor in the seals, complaining heavily of this stratagem; as if he thereby intended to defraud those persons to whom he was really in debt, who were many and in danger of being ruined by his fall. But I am inclined to hope, that he made use of this artifice with a more innocent view; namely, to procure himself a short respite from their importunities, till he could settle his private affairs, extremely perplexed by former ill management, and now by the loss of his employments rendered desperate. That I may not be obliged to mention any more an affair, alike ungrateful to the reader and writer, I will observe here, that about three years after this, he petitioned king James for a total remission of his censure: "to the end that this blot of ignominy might be removed from him, and from his memory with posterity." What lay in a king's power, James readily granted, a full and entire pardon of his whole sentence†. Posterity likewise, to which he appealed, has seemed unwilling to remember that he ever offended: and those who record his failings, like those who have made observations on the spots in the sun, neither pretend to diminish his real brightness in himself, nor deny his universal influence on the world of learning. Thus he withdrew from the glare of a public station into the shade of retirement and studious leisure; often lamenting, that ambition and false glory had so long diverted him from the noblest as well as the most useful employments of a reasonable being: mortified, no doubt, into these sentiments by a severe conviction, in his own person, of the instability and emptiness of all human grandeur.

Hitherto we have followed him through the bustle and obliquity of business. We shall find him henceforth in a more pleasing, tho' a less conspicuous, situation; freed from the servitude of a court; from an intolerable attendance there, on the vices and follies of men every way his inferiors (for in this reign no one could rise to power on more honorable terms;) in a condition now to pursue the native bent of his genius; to live to himself, and for the advantage, not of one age, or one people only, but of all mankind, and all times to come.

The first considerable work he engaged in, after his retirement, was the history of Henry the seventh; which he undertook at the desire of king James, and published in the year 1622. Whatever some writers may have insinuated of his melancholy and dejection, we find every where, in this performance, evident traces of a spirit unbroken by age, and unsubdued by misfortunes. It has been highly applauded, and as much condemned: a proof that it has more than common merit. And we may venture to affirm, that, whatever it's faults are, they arise from no want of vigor in the understanding, or of warmth in the imagination of the writer. King James affected to consider his great grandfather Henry as a perfect model for the imitation of other monarchs: and as his was the reign of flattery, this quickly grew to be the prevalent and fashionable opinion at court. Tho' in truth, that prince's character was, in every part of it, unamiable; and his conduct, on many occasions, weak or wicked. If

Cabala,  
p. 253.  
Ed. 1691.

Bacon, Vol.  
II. Letter  
cccxc.  
Cabala,  
p. 249.

Boswell's  
abridg. Post.  
p. 3.

An. 1622.

\* One day, during his trial, as he was passing through a room where several of his domestics were sitting; upon their getting up to salute him, Sit down my masters, he cried; your rise hath been my fall.

† Accordingly he was summoned to the last parliament of king Charles.



my lord Bacon has not wholly escaped the infection of his age; if he has here and there attempted to brighten the imperfections, and throw in shades the bad features of the original he was drawing; yet, through these softening, we can easily see this king as he was, and in all his genuine deformity. Suspicion and avarice, his own historian acknowledges, were the chief ingredients in his composition: and therefore his politics, both at home and abroad, were narrow, selfish, and false. Void of all great and extensive prudence, he endeavoured to supply that want by temporary shifts, and the little expedients of cunning. By these he commonly had the luck to extricate himself out of difficulties, which a wiser man would have timely foreseen, and a better man have wholly prevented. But as his genius was unfociable and solitary, the darkness in his temper passed on mankind for depth and sagacity in his understanding. His avarice too, was p. 272. fordid and shameless. Nothing seemed mean, nothing unjust in his eyes, that could fill his coffers: and merely to fill them, for of wealth he had no enjoyment, he descended to arts of rapine no less scandalous than they were oppressive.

I have acknowledged that my lord Bacon's History has been taxed of partiality, and I will not dissemble that his style has been objected to, as full of affectation, full of false eloquence. But that was the vice, not of the man, but of the times he lived in: and particularly of a court, that, after the sovereign's example, delighted in the tinsel of wit and writing, in the poor ingenuity of punning and quibbling.

His Essays have, of all his works, been most current, and are still very justly esteemed. Towards the close of his life he greatly enlarged them both in number and weight; and published them anew, not only in English, but in a more universal language, which, he imagined, may preserve them as long as books shall last. As they are intended not to amuse but instruct; as they are neither a satire on human nature, nor the school of scepticism; Monsieur de Voltaire observes, that they have been less popular than the *Maxims of Rochefoucault*, or the *Essays of Montagne*. A remark that does my lord Bacon honor; who was too great a man to court a reputation from the multitude, by sacrificing to that malignity, or indulging that curious extravagance, which too many readers, I am afraid, expect to find gratified, even in writings of a moral kind.

Of the other works which he composed in this last scene of his life, I forbear to make any mention here: they will be all enumerated in another place. Let me only observe, that nothing can give a more exalted idea of the fruitfulness and vigor of his genius, than the number and nature of those writings. Under the discouragement of a public censure, broken in his health, broken in his fortunes, he enjoyed his retirement not above five years: a little portion of time! yet he found means to crowd into it what might have been the whole business, and the glory too, of a long and fortunate life. Some of his former pieces he methodized and enriched: several new ones he composed, no less considerable for the greatness and variety of the arguments he treated, than for his manner of treating them. Nor are they works of mere erudition and labor, that require little else but strength of constitution and obstinate application: they are original efforts of genius and reflection, on subjects either new, or handled in a manner that makes them so. His notions he drew from his own fund: and they were solid, comprehensive, systematical; the disposition of his whole plan throwing light and grace on all the particular parts. In considering every subject, he seems to have placed himself in a point of view so advantageous and elevated, that he could from thence discover a whole country round him, and mark out the several spots of it, distinctly and with ease. These characters are equally due to the works in which he made some progress, and to those he could only attempt.

His supposed poverty has been much insisted on, not only by our own writers, but by foreigners. Some of the former have asserted, that he languished out a solitary being in obscurity and indigence: and among the latter, Le Clerc, who was led into the same notion by a passage in one of Howell's letters, has animadverted with an honest indignation on the meanness of that prince, who could leave such a man as he was to struggle, in his declining age, both with



penury and affliction. I believe the matter has been exaggerated. Perhaps he did not enjoy affluence or entire ease of fortune: but his ordinary income must have placed him above sordid want and anxiety. Dr. Rawley, who lived long in his family, affirms that the king had given him, out of the Broad Seal and Alienation office, to the value of eighteen hundred pounds a year; which, with his own lands amounting to a third part more, he retained to his death. But then, he had treasured up nothing in his prosperous condition against the day of adversity: and his pension was not only precarious, but ill-paid, by a king, who, instead of husbanding his revenues for great or good purposes, was daily lavishing them away, in fruitless negotiations, or on the least deserving of his subjects. Add to these things, that my lord Bacon lay all this time under the incumbrance of a vast debt; and that he had doubtless expended very considerable sums in procuring or making experiments. Even those, whom we see close and sparing on every other occasion, are yet profuse in gratifying a favorite passion. From all which arose that distress and those difficulties into which he was often plunged. That they were many and great, we can entertain no doubt\*. It is but too strongly confirmed to us by some unusual expressions in his letters to king James; where we find him pouring out his heart in complaints and supplications of such a strain, as every one who reveres his memory will wish he had never uttered. Those who insist on the meanness, those who plead for the dignity, of human nature, may, in this one man, find abundant matter to support their several opinions. But, let us draw a veil over imperfections, and at the same time acknowledge, that a very ordinary penetration may serve to discover remarkable blemishes and failings in the most comprehensive minds; in the greatest characters, that ever adorned mortality.

Bacon, Vol.  
II. Letter  
CCLXXI.

King James died in 1625; after an inglorious and a fatal reign, of three and twenty years: despised by foreigners, despised and hated by his own subjects. The mischievous notions he broached, the perverse conduct he held, gave rise to those divisions that quickly after involved his kingdoms in all the guilt and misery of a civil war: that shook the British constitution to its foundations, and in the end overturned it; tho' apparently framed to last for ages, as it had been ageds in building up and perfecting.

An. 1625.

His unfortunate chancellor survived him something above a year. The multiplicity of business and study in which he had been long engaged, but above all the anguish of mind he secretly labored under, had undermined and broken into his health. After having been for some time infirm and declining, he owed his death at last to an excess, not unbecoming a philosopher; in pursuing with more application than his strength could bear, certain experiments touching the conservation of bodies. He was so suddenly struck in his head and stomach, that he found himself obliged to retire into the earl of Arundel's house at Highbate, near which he then happened to be. There he sickened of a fever, attended with a defluxion on his breast; and, after a week's illness, expired; on the ninth of April, in the sixty-sixth year of his age. How he bore this indisposition, or what discourses he held at the nearer approaches of death, no account is to be found; an omission which every reader must feel and regret: as nothing can awaken the attention, nothing affect the heart of man more strongly than the behaviour of eminent personages in their last moments; in that only scene of life wherein we are all sure, later or sooner, to resemble them. There remains only a letter, the last he ever wrote, addressed to that nobleman under whose roof he died; in which he compares himself to a celebrated philosopher of antiquity, Pliny the elder; who lost his life by enquiring, without dangerous a curiosity, into the first great eruption of Vesuvius. Thus lived, and died, the lord chancellor Bacon†.

Bacon, Vol.  
II. Letter  
CCXCVI.

An. 1626.

\* It appears by a letter of Buckingham to him that he asked for the provostship of Eaton college, and was refused it.  
† He continued single till after forty, and then took to wife a daughter of alderman Barnham of London, with whom he received a plentiful fortune, but had by her no children: and the ost-lived him upwards of twenty years. Such readers as have any curiosity to know what regimen he observed, may take the following account of it in the words of his chaplain. "His diet was rather plentiful and liberal than restrained. In his younger years he was much given to the sweet and lighter sorts of meats: but after



He was buried privately in St. Michael's church near St. Albans. The spot that contains his remains lay obscure and undistinguished, till the gratitude of a Sir Thomas private man, formerly his servant, erected a monument to his name and memory. Meaux's. In another country, in a better age, his monument would have stood a public proof in what veneration the whole society held a citizen, whose genius did them honor, and whose writings will instruct their latest posterity.

One passage in his will is remarkable. After bequeathing his soul and body in the usual form, he adds, " my name and memory I leave to foreign nations ; Baconiana, p. 203.

" and to mine own countrymen, after some time be passed over." As to the former, he was, even in his life-time, looked upon with admiration by the most eminent men that France and Italy could then boast of ; and by some of them visited, as one whose talents were an ornament, not only to his age, but to human nature itself. When the marquis D'Effiat brought into England the princess Henrietta-Maria, wife to Charles the first, he paid a visit to my lord Bacon ; Voltaire, Lettres sur les Anglois, who, being then sick in bed, received him with the curtains drawn. " You p. 82.

" resemble the angels, said that minister to him : we hear those beings continually talked of, we believe them superior to mankind, and we never have the consolation to see them." Among his countrymen, the names, alone, of those who have adopted his notions, and proceeded on his plan, are his highest encomium. To pass over a long line of philosophers, all illustrious ; he reckons in the list of his followers a Boyle, a Locke, a Newton himself.

One singularity there was in his temperament, not easily to be accounted for : Rawley's Life of Bacon. in every eclipse of the moon, whether he observed it or not, he was certainly seized with a sudden fit of fainting ; which left him, without any remaining weakness, as soon as the eclipse ended. He was of a middling stature ; his forehead spacious and open, early impressed with the marks of age ; his eye lively Evelyn of Medals, p. 349.

and penetrating ; his whole appearance venerably pleasing : so that the beholder was irresistibly drawn to love, before he knew how much reason there was to revere him. In this respect, we may apply to my lord Bacon what Tacitus finely observes of his father-in-law, Agricola : a good man you would readily have judged him to be, and been pleased to find him a great man.

Those talents that commonly appear single in others, and they too men of reputation, shone forth in him united and eminent. All his contemporaries, even those who hated the courtier, stand up and bear witness together to the superior abilities of the writer and pleader, of the philosopher and companion. In conversation, he could assume the most differing characters, and speak the language proper to each, with a facility that was perfectly natural ; or the dexterity of the habit concealed every appearance of art : a happy versatility of genius, which all men wish to arrive at, and one or two, once in an age, are seen to possess.

In public, he commanded the attention of his hearers, and had their affections wholly in his power. As he accompanied what he spoke with all the expression and grace of action, his pleadings, that are now perhaps read without emotion, never failed to awaken in his audience the several passions he intended they should feel. This is not a picture of him drawn from fancy : it is copied, and that too but in miniature, after another taken by one who knew him well ; a good judge of merit, and seldom known to err, at least in heightening a favorable likeness. As a philosopher, it is scarce hyperbolic to say of him, in Mr. Addison's words, that he had the sound, distinct, comprehensive knowledge of Aristotle, with all the beautiful lights, graces, and embellishments of Cicero. The commendation of his talents, the learned throughout Europe have given their common sanction, and own him for the father of the only valuable philosophy, that of fact and observation.

" words he preferred the stronger, such as the flames afforded ; as those which bred the more firm and substantial juices, and less dissipable. He did not, you may be sure, neglect that himself, which he " so much extolled to others in his writings, the frequent use of mire ; whereof he took the quantity of about three grains in thin water, every morning, for thirty years together. His ordinary phlegm " was a maceration of rhubarb, infused into a draught of white wine and beer mingled together for the space of half an hour, once in six or seven days, immediately before his meat, whether distinct or mixed, and that it might dry the body less. His receipt for the gout, which constantly gave him pain, was to " throw it down in the end of the Natural History. See Vol. I. p. 362.



It remains then to consider him, more particularly than we have hitherto done, in this most known and conspicuous part of his character; where his merit is unquestionably great and entirely his own. For, to the writings of the ancients he was not, he could not, be obliged. They had either mistaken the right road to natural knowledge; or if any of them struck into it by chance, finding the way difficult, obscure, and tedious, they soon abandoned it for ever. He owed to himself alone, to a certain intellectual sagacity, that beam of true discernment which shewed him at once, and as it were by intuition, what the most painful enquirers, for more than twenty ages backward, had searched after in vain. And here let me observe towards him the same impartiality I have hitherto aimed at: and, in order to know what he really did as a philosopher, place before the reader a short view of the state of learning in Europe, from the dark period of Gothicism down to the sixteenth century. But let me at the same time acknowledge, that this account will be only a rude and imperfect sketch; consisting of a few detached particulars, without much order or method.

An. 787.

Altho the great era of ignorance has been fixed, justly enough, to those times when the northern nations, like a mighty inundation, overspread the face of Europe; yet it is no less certain that barbarism and corruption were entered into arts and sciences ere the savages had made any impression on the Roman empire. Under them indeed, that darkness which had been long growing on the world, and gradually extinguishing every light of knowledge, soon became total, and threatened to be perpetual. In the eighth century, we find that the highest ambition of the clergy was to vie with one another in chanting the public service, which yet they hardly understood. This important emulation run so high between the Latin and French priesthood, that Charlemagne, who was then at Rome, found it necessary to interpose, and decide the controversy in person. The monk, who relates this affair with a most circumstantial exactness, adds, that the emperor entreated pope Adrian to procure him certain persons, who might teach his subjects the first principles of grammar and arithmetic; arts that were then utterly unknown in his dominions. This warlike monarch, tho his own education had been so far neglected that he had never learned to write, discovered, by his natural good sense, the value of knowledge, and set himself to be its promoter and patron. He even allowed a public school to be opened in the imperial palace, under the direction of our famous countryman Alcuin; on whom he chiefly relied for introducing into France some tincture of that philosophy which was still remaining in Britain. But how slow and ineffectual the progress of any learning must have been, we may guess from an edict of the council of Chellons, in the next century; which earnestly exhorts all monasteries to be careful in having their manuals of devotion correctly transcribed: lest, while they piously mean to ask of God one thing, some inaccurate manuscript may betray them into praying for the quite contrary.

813.

Launoi, p. 3.

Hill. et antiq.  
univer. Oxon.  
p. 13.

As to Britain, if learning had still some footing there in the eighth century, it was so totally exterminated from thence in the ninth; that, throughout the whole kingdom of the West-Saxons, no man could be found who was scholar enough to instruct our king Alfred, then a child, even in the first elements of reading: so that he was in his twelfth year before he could name the letters of the alphabet. When that renowned prince ascended the throne, he made it his study to draw his people out of the sloth and stupidity in which they lay: and became, as much by his own example, as by the encouragement he gave to learned men, the great restorer of arts in his dominions. And here we are called upon to observe, that as France had been formerly obliged to England in the person of Alcuin, who planted the sciences there under Charlemagne; our island now received the same friendly assistance from thence by Grimbold, whom king Alfred had invited hither, and made chancellor of Oxford. Such events as these are too considerable, in the literary history of the ninth age, to be passed over unobserved. The rise of a noted grammarian, the voyage of an applauded doctor, are recorded, by the chroniclers of that century, with the same reverence that an ancient writer would mention the appearance of a Lycurgus, or a Timoleon; of a law-giver who new-models a state, or a hero who rescues a whole people from slavery.

879.



But these fair appearances were of short duration. A right of thicker darkness quickly overspread the intellectual world: and in the moral, followed a revolution still more deplorable. To common sense and piety, succeeded dreams and fables, visionary legends and ridiculous penances. The clergy, now utter strangers to all good learning, instead of guiding a rude and vitious laity by the precepts of the gospel, which they no longer read, amused them with forged miracles, or overawed them by the ghostly terrors of demons, spectres and chimæras. This was more easy, and more profitable too, than the painful example of a virtuous life. The profound depravity that was spread through all conditions of men, ecclesiastic and secular, appears in nothing more plain than in the reasons assigned for calling several councils about this time. In one, new canons were to be made, forbidding adultery, incest, and the practice of pagan superstitions: as if these things had not till then been accounted criminal. In another, it was found necessary to declare, that a number of angels worshipped universally under certain names were altogether unknown: and that the church could not warrant the particular invocation of more than three. A third, which the emperors Irene had summoned for the reformation of discipline, ordained, that no prelate should thenceforth convert his episcopal palace into a common inn; nor, in consideration only of any sum of money given him by one man, curse and excommunicate another. A fourth and fifth censure the indecency of avowed concubinage: and enjoin that friars and nuns should no longer converse or live promiscuously in the same convent.

The see of Rome, which should have been a pattern to the rest, was of all christian churches the most licentious\*; and the pontifical chair often filled with men, who, instead of adorning their sacred character, made human nature itself detestable: a truth by many catholic writers acknowledged and lamented. Several popes were, by their successors excommunicated, their acts abrogated, and the sacraments administered by them pronounced invalid. No less than six were expelled by others who usurped their seat; two were assassinated: and the infamous Theodora, infamous even in that age, by her credit in the holy city obtained the triple crown for the most avowed of her gallants, who assumed the name of John the tenth. Another of the same name was called to govern the christian world at the age of twenty one; a bastard son of Pope Sergius who died eighteen years before. If such were the men who arrogated to themselves titles and attributes peculiar to the Deity, can we wonder at the greatest enormities among lay-men? Their stupidity kept pace with the dissolution of their manners, which was extreme: they still preserved, for the very clergy we have been speaking of, a reverence they no longer had for their God. The most abandoned among them, miscreants, familiar with crimes that humanity startles at, would yet, at the hazard of their lives, defend the immunities of a church, a consecrated utensil, or a donation made to a convent. In such times as those, it were in vain to look for useful learning and philosophy. Not only the light of science, but of reason, seems to have been well-nigh extinguished.

It was not till late, after the sack of Constantinople by the Turks, that the writings of Aristotle began to be universally known and studied. They were then, by certain fugitive Greeks, who had escaped the fury of the Ottoman arms, brought away and dispersed through the Western parts of Europe. Some particular treatises of his, it is true, had been long made public; but chiefly in translations from the Arabic, done by men who, far from rendering faithfully

\* The book entitled, *The tax of the Roman Clergy*, published first at Rome, in the year 1514, furnishes us with a flagrant instance of this in the following passage, which I chuse not to translate. "Abolutio à lapsu carnis super quocunque actu libidinoso commissio per Clericum, etiam cum monialibus, intra "et extra septa monasterii; aut cum conjugum, vel affinitibus, aut filia spiritali, aut quibuscumque aliis, five "ab unoquoque de per se, five simul ab omnibus abolutio petatur, cum dispensatione ad ordines et beneficia, "cum inhibitione, tur. 36, duc. 3. Si vero cum illis petatur abolutio etiam a crimine commissio contra naturam, "vel cum brutis, cum dispensatione, ut supra, et cum inhibitione, tur. 90, duc. 12, carl. 16. Si vero pe- "tatur tantum abolutio a crimine contra naturam, vel cum brutis, cum dispensatione et inhibitione, turon. "36, duc. 9. Abolutio pro Moniali, quæ se permittit plures cognosci intra et extra septa monasterii, cum re- "habilitate ad dignitates illius ordinis, etiam abbatialem, turon. 36, duc. 9." In the edition of Bois-le-duc, there is "Abolutio pro eo, qui interfecit patrem, matrem, sororem, uxorem . . . §. 5, vel 7." Vide Bayle, art. BANC.



the author's sense, hardly understood his language. These however gave birth to the scholastic philosophy; that motley offspring of error and ingenuity; and to speak freely, the features of both parents were all along equally blended in the complexion of the daughter. To trace at length the rise, progress, and variations of this philosophy, would be an undertaking not only curious but instructive, as it would unfold to us all the mazes in which the force, the subtlety, the extravagance of human wit can lose themselves: till not only profane learning but divinity itself was at last, by the refined frenzy of those who taught both, subtilized into mere notion and air.

Their philosophy was neither that of Aristotle entirely, nor altogether differing from his. Whatever opinions the first founders of it had been able to draw, from Boetius his Latin commentator, or from the wretched translations above-mentioned, these they methodized and illustrated, each according to his several talent, and the genius of the age he lived in. But this, instead of producing one regular and consistent body of science, even from wrong principles, ended in a monster, made up of parts every where misshapen and dissimilar. Add to this, that they left natural knowledge wholly uncultivated; to hunt after occult qualities, abstract notions, and questions of impertinent curiosity, by which they rendered the very logic their labours chiefly turned upon intricate, useless, unintelligible.

An. 1050.  
An. 1320.  
Polyhistor.  
Tom. II.  
p. 73, etc.

Alfredus, in his chronology of the schoolmen, has divided their history into three principal periods or successions: the first beginning with Lanfranc, archbishop of Canterbury, who flourished about the middle of the eleventh century; and ending with Albert the Great two ages later: the second, that commences from him, determining in Durand; as the third and last ended in Luther, at the reformation. Morhof, however, strenuously contends, that Rucellinus, an Englishman, was properly the father of the schoolmen: and that to him the sect of the Nominalists owed its rise and credit. He adds, that it revived afterwards in the person of Occam, another of our countrymen, and the perpetual antagonist of Duns Scotus, who had declared for the Realists, and was reckoned their ablest champion. The learned reader needs not be told, that the scholastic doctors were all distinguished into these two sects; formidable party-names, which are now as little known or mentioned as the controversies that once occasioned them. It is sufficient to say, that, like all other parties, they hated each other heartily; treated each other as heretics in logic: and that their disputes were often sharp and bloody; ending not only in the metaphorical destruction of common sense and language, but in the real mutilation and death of the combatants. For, to the disgrace of human reason, mankind in all their controversies, whether about a notion or a thing, a predicament or a province, have made their last appeal to brute force and violence. The titles \* with which these leaders were honored by their followers, on account of the sublime reveries they taught, are at once magnificent and absurd: and prove rather the superlative ignorance of those times, than any transcendent merit in the men to whom they were applied. From this censure we ought nevertheless to except one, who was a prodigy of knowledge for the age he lived in, and is acknowledged as such by the age to which I am writing. I mean the renowned *fyar* Bacon, who shone forth singly through the profound darkness of those times; but rather dazzled than enlightened the weaker eyes of his contemporaries. As if the name of Bacon were auspicious to philosophy, this man, not only without assistance or encouragement, but insulted and persecuted, by the unconquerable force of his genius penetrated far into the mysteries of nature, and made so many new discoveries in astronomy and perspective, in mechanics and chemistry, that the most sober writers even now cannot mention them without some marks of emotion and wonder. It is Dr. Freind's observation, that he was almost the only astronomer of his age: and the reformation of the calendar, by him attempted and in a manner perfected, is a noble proof of his skill in that science. The construction of spectacles, of telescopes, of all sorts of glasses that magnify or diminish ob-

\* The profound, the sublime, the marvellous, the indefatigable, the irrefragable, the angelic, the seraphic, the fountain of life, light of the world, &c.



jects, the composition of gunpowder (which Bartholdus Swartz is thought to have first hit upon almost a century later) are some of the many inventions with justice ascribed to him. For all which, he was in his life-time calumniated, imprisoned, oppressed: and after his death wounded in his good name, as a magician who had dealt in arts, infernal and abominable. He tells us, that there were but four persons then in Europe who had made any progress in the mathematics; and in chemistry yet fewer: that those who undertook to translate Aristotle were every way unequal to the task: and that his writings, which, rightly understood, Bacon considered as the fountain of all knowledge, had been lately condemned and burned, in a synod held at Paris.

The works of that celebrated antient have, in truth, more exercised the hatred and admiration of mankind, than those of all the other philosophers together. Launoy enumerates no less than thirty-seven fathers of the church who have stigmatized his name, and endeavoured to reprobate his doctrines. Morhoff has reckoned up a still greater number of his commentators, who were at the same time implicitly his disciples: and yet both these authors are far from having given a complete list either of his friends or enemies. In his life-time he was suspected of irreligion, and, by the pagan priesthood, marked out for destruction: the successors of those very men were his partisans and admirers. His works met with much the same treatment from the christian clergy: sometimes proscribed for heretical; sometimes triumphant and acknowledged the great bulwark of orthodoxy. Launoy has written a particular treatise on the subject, and mentioned eight different revolutions in the fortune and reputation of Aristotle's philosophy. To pass over the intermediate changes, I will just mention two, that make a full and ridiculous contrast. In the above-mentioned council held at Paris about the year 1209, the bishops there censured his writings, without discrimination, as the pestilent sources of error and heresy; condemn-

ed them to the flames, and commanded all persons, on pain of excommunication, not to read, transcribe, or keep any copies of them. They went farther, and delivered over to the secular arm no less than ten persons, who were burned alive, for certain tenets, drawn, as those learned prelates had heard, from the pernicious books in question. In the sixteenth century, those very books were not only read with impunity, but every where taught with applause: and whoever disputed their orthodoxy, I had almost said their infallibility, was persecuted as an infidel and miscreant. Of this the sophister Ramus is a memorable instance. Certain animadversions of his on the peripatetic philosophy occasioned a general commotion in the learned world. The university of Paris took the alarm hotly, and cried out against this attempt as destructive of all good learning, and of fatal tendency to religion itself. The affair was brought before the parliament; and appeared of so much consequence to Francis the first, that he would needs take it under his own immediate cognizance. The edict is still extant, which declares Ramus insolent, impudent, and a liar. His books are thereby for ever condemned, suppressed, abolished: and, what is a strain of unexampled severity, the miserable author is solemnly interdicted from transcribing, even from reading his own compositions!

even from reading his own compositions!

We might from hence be led to imagine, that when the authority of an antient philosopher was held so sacred, philosophy itself must have been thoroughly understood, and cultivated with uncommon success; but the attachment of those doctors was to a name, not to truth, or valuable science: and our author very justly compares them to the olympic wrestlers, who abstained from necessary labors, that they might be fit for such as were not so. Under their management, it was a philosophy of words and notions, that seemed to exclude the study of nature; that, instead of enquiring into the properties of bodies, into the laws of motion by which all effects are produced, was conversant only in logical definitions, distinctions, and abstractions, utterly barren and unproductive of any advantage to mankind. The great aim of those solemn triflers was rather to perplex a dispute, than to clear up any point of useful disquisition; to triumph over an enemy, than to enlarge the knowledge, or better the morals of their followers. So that this capitious philosophy was a real obstacle to all advances in sound learning, hu-

Launoy, ubi supra. lib. de varia Arist. fortuna. Morhoff. 1. a. Tom. IV. p. 206.

Launoy, tom. IV. p. 206. 10th of May, An. 1543.

Bacon's Apology.

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## THE LIFE OF THE

man and divine. After it had been adopted into the christian theology, far from being of use to explain and ascertain mysteries, it served to darken and render doubtful the most necessary truths; by the chicanery of argumentation with which it supplied each sect, in defence of their peculiar and favorite illusions. To so extravagant a height did they carry their idolatry of Aristotle, that some of them discovered, or imagined they discovered in his writings, the doctrine of the Trinity; that others published formal dissertations to prove the certainty of his salvation, tho a heathen: and that a patriarch of Venice is said to have called up the devil expressly, in order to learn from him the meaning of a hard word in Aristotle's Physics. But the crafty demon, who perhaps did not understand it himself, answered in a voice so low and inarticulate, that the good prelate knew not a word he said. This was the famous Hermolaus Barbaro: and the Greek word, that occasioned his taking so extraordinary a step, is the *Entelechia* of the Peripatetics; from whence the schoolmen raised their substantial forms, and which Leibnitz, towards the end of the last century, attempted to revive in his theory of motion.

The reformation itself, that diffused a new light over Europe, that set men upon enquiring into errors and prepossessions of every kind, served only to confirm the dominion of this philosophy: protestants as well as papists entrenching themselves behind the authority of Aristotle, and defending their several tenets by the weapons with which he furnished them. This unnatural alliance of theology with the peripatetic doctrines rendered his opinions not only venerable but sacred: they were reckoned as the land-marks of both faith and reason, which to pull up or remove would be daring and impious. Innovations in philosophy, it was imagined, would gradually sap the very foundations of religion, and in the end, lead to downright atheism. If that veil of awful obscurity, which then covered the face of nature, should be once drawn; the rash curiosity of mankind would lead them to account for all appearances in the visible world, by second causes, by the powers of matter and mechanism: and thus they might come insensibly to forget or neglect the great original cause of all. This kind of reasoning convinced the multitude, over-awed the wiser few, and effectually put a stop to the progress of useful knowledge.

Such, in general, were the dispositions of mankind when Sir Francis Bacon came into the world; whom we will not consider as the founder of a new sect, but as the great assertor of human liberty; as one who rescued reason and truth from the slavery in which all sects alike had, till then, held them. As a plausible hypothesis, a shining theory, are more amusing to the imagination, and a shorter way to fame, than the patient and humble method of experimenting, of pursuing nature through all her labyrinths by fact and observation; a philosophy built on this principle, could not, at first, make any sudden or general revolution in the learned world. But it's progress, like that of time, quiet, slow, and sure, has in the end been mighty and universal. He was not however the first among the moderns who ventured to dissent from Aristotle. Ramus, Patricius, Bruno, Severinus, to name no more, had already attacked the authority of that tyrant in learning, who had long reigned as absolutely over the opinions of men, as his restless pupil had of old affected to do over their persons. But these writers invented little that was valuable themselves, however justly they might reprehend many things in him. And as to the real improvements made in some parts of natural knowledge before our author appeared, by Gilbert, Harvey, Copernicus, father Paul, and some few others, they are well known, and have been deservedly celebrated. Yet there was still wanting one great and comprehensive plan, that might embrace the almost infinite varieties of science, and guide our enquiries aright in all. This Sir Francis Bacon first conceived, in it's utmost extent; to his own lasting honor, and to the general utility of mankind. If we stand surprized at the happy imagination of such a system, our surprize redoubles upon us when we reflect, that he invented and methodized this system, perfected so much, and sketched out so much more of it, amidst the drudgery of business and the civil tumults of a court. Nature seems to have intended him peculiarly for this province, by bestowing on him with a liberal



liberal hand all the qualities requisite: a fancy volatile and prompt to discover the similitudes of things; a judgment steady and intent to note their subtlest differences; a love of meditation and enquiry; a patience in doubting; a slowness and diffidence in affirming; a facility of retracting; a careful anxiety to plan and dispose. A mind of such a cast, that neither affected novelty, nor idolized antiquity, that was an enemy to all imposture, must have had a certain congeniality and relation to truth. These characters, which, with a noble confidence, he has applied to himself, are obvious and eminent in his *Instauration of the Sciences*: a work by him designed, not as a monument to his own fame, but a perpetual legacy to the common benefit of others. He has divided the whole of it into six capital parts; with a short account of which we shall close this imperfect relation of his life and writings.

Bacon, Vol.  
III. p. 5 6.

1. The first part of this *Instauration* proposes a general survey of human knowledge: and this he executed in that admirable treatise entitled, *The Advancement of Learning*. As he intended to raise a new and lasting structure of philosophy, founded not in arbitrary opinions or specious conjectures, but in truth and experience; it was absolutely necessary to his design, first to review accurately the state of learning as it then stood, through all it's provinces and divisions. To do this effectually required, with an uncommon measure of knowledge, a discernment not only exquisite but universal: the whole intellectual world was subjected to it's examination and censure. That he might not lose himself on a subject so vast and of such variety; he has, according to the three faculties of the soul, memory, fancy, understanding, ranged the numerous train of arts under three great classes, history, poetry, philosophy. These may be considered as the principal trunks from which shoot forth, in prodigious diversity, the lesser parts and branches of science. Whatever is deficient, erroneous, or still wanting in each, he has pointed out at large: together with the properest means for amending the defects, for rectifying the errors, and for supplying the omissions in all. Upon the whole, he was not only well acquainted with every thing that had been discovered in books before his time, and able to pronounce critically on those discoveries: he saw clearly, and at the end of this treatise has marked out in one general chart, the several tracks of science that lay still neglected or unknown. And to say truth, some of the most valuable improvements since made have grown out of the hints and notices scattered through this work: from which the moderns have selected, each according to his fancy, one or more plants to cultivate and bring to perfection.

2. The design of the *Novum Organon*, which stands as the second part to *Novum Organis* his *Instauration*, and may be reckoned the most considerable, was to raise and enlarge the powers of the mind, by a more useful application of it's reasoning faculty to all the different objects that philosophy considers. In this place, our

De augmentis  
scientiarum.

author offers to the world a new and better logic; calculated not to supply arguments for controversy, but arts for the use of mankind; not to triumph over an enemy by the sophistry of disputation, but to subdue nature itself by experiment and enquiry. As it differs from the vulgar logic in it's aim, it varies no less from that captious art in the form of demonstrating: for it generally rejects syllogism, as an instrument rather hurtful than serviceable to the investigation of nature, and uses in it's stead a severe and genuine induction. Not the trivial method of the schools, that, proceeding on a simple and superficial enumeration, pronounces at once from a few particulars, exposed to the danger of contradictory instances: but an induction that examines scrupulously the experiment in question, views it in all possible lights, rejects and excludes whatever does not necessarily belong to the subject; then, and not till then, concluding from the affirmatives left. A croud of instances might be brought to shew how greatly this method of enquiry has prospered in the hands of the moderns; and how fruitful it has been of new discoveries, unknown and unimagined by antiquity. But I will only mention one that may stand in place of many; the *Optics* of our immortal Newton: where, in a variety of experiments, he has analysed the nature and properties of light itself, of the most subtle of all bodies, with an accuracy, a precision, that could hardly have been expected from examining



the grossest and most palpable. From whence, by the method of induction, he has raised the noblest theory that any age or country can shew.

3. It has been the fate of almost every considerable scheme for the good of mankind to be treated, at first, as visionary, or impracticable, merely for being new. This our author foretaw, and endeavoured to obviate, in the third part of his Institution; by furnishing materials himself towards a natural and experimental history; a work which he thought so indispensably necessary, that without it the united endeavours of all mankind, in all ages, would be insufficient to rear and perfect the great structure of the sciences. He was aware too, that even men of free and more extensive notions, who relished his new logic, might be deterred from reducing it to practice, by the difficulties they would meet with in experimenting, according to the rules by him prescribed. He therefore led the way to other enquirers, in his *Sylva Sylvarum*, or history of nature; which, however imperfect in many respects, ought to be looked upon as extensive and valuable for that age, when the whole work was to be begun. This collection, which did not appear till after his death, has been generally considered as detached from, and independent on his general plan: and therefore his design in making and recording these experiments has not been duly attended to by the reader. They are a common repository or store-house of materials, not arranged for ornament and show, but thrown loosely together for the service of the philosopher: who may from thence select such as fit his present purpose; and with them, by the aid of that organ or engine already described, build up some part of an axiomatical philosophy, which is the crown and completion of this system. The phenomena of the universe he ranges under three principal divisions; the history of generations or the production of all species according to the common laws of nature; that of preter-generations or of births deviating from the stated rule; and thirdly, the history of nature as confined or assisted, changed or tortured by the art of man: which last discloses to us a new face of things, and as it were another world of appearances. The use of such a history he reckens two-fold; either the knowledge of qualities in themselves: or to serve for the first matter of a true and useful philosophy. With this view only did our author make and gather together the miscellaneous collection I am speaking of. That many particular experiments have been found doubtful or false, cannot be wondered at: the whole was then a tract of science uncultivated and desert. If several considerable men, treading in the path he struck out for them, have gone farther and surveyed it more exactly than he did, yet to him is the honor of their discoveries in a manner due. It was Columbus alone who imagined there might be a new world; and who had the noble boldness to go in search of it, through an ocean unexplored and immense. He succeeded in the attempt; and led his followers into a spacious continent, rich and fruitful. If succeeding adventurers have penetrated farther than he into it's several regions, marked out and distinguished them with more accuracy; the result of these discoveries has less extended their fame than it has raised and enlarged his.

4. After these preparations, nothing seems wanting but to enter at once on the last and most exalted kind of philosophy: but the author judged, that, in an affair so complicated and important, some other things ought to precede, partly for instruction, and partly for present use. He therefore interposed a fourth and fifth part: the former of which he named *Scala Intellectus*, or a series of steps by which the understanding might regularly ascend in it's philosophical researches. For this purpose, he proposed examples of enquiry and investigation, agreeable to his own method, in certain subjects; selecting such especially as are of the noblest order, and most widely differing from one another; that instances of every sort might not be wanting. The fourth part then was to contain a particular application and illustration of the second. In this light we chuse to consider the six monthly histories which he proposed to write on six principal topics in natural history: namely, of winds; of life and death; of rarefaction and condensation; of the three chemical principles, salt, sulphur, mercury; of bodies heavy and light; of sympathy and antipathy. The first three, in the order I have here placed them, he prosecuted at some length; and in a manner that shews with

what



what a happy sagacity he could apply his own rules to the interpretation of nature. The wonder is, that other enquirers since his time have done so little towards perfecting the two first mentioned, things of so great concern to human society, and to every individual. As to the three last, we have only a short introduction to each: death having prevented him from writing any thing on the subjects themselves. Such is our condition here: whoever is capable of planning useful and extensive schemes dies always too soon for mankind, even in the most advanced age.

5. Of the fifth part he has left nothing but the title and scheme. It was intended to be only a temporary structure, raised with such materials as he himself had either invented, or tried, or improved; not according to the due form of genuine induction, but by the same common use of the understanding that others had employed. And this was to remain no longer than till he had raised,

6. The sixth and sublimest part of this grand Instauration, to which all the precedent are merely subservient: a philosophy purely axiomatical and scientific; prima, five activa. flowing from that just, castigated, genuine manner of enquiry, which the author first invented and applied. But this he despaired of being able to accomplish: and the learned of all countries from his days have been only laboring some separate or lesser parts of this amazing edifice, which ages to come may not see finished according to the model left them by this one man.

Such, and so unlimited were his views for the universal advancement of science; the noble aim to which he directed all his philosophic labors. What Cæsar said, in compliment, to Tully may, with strict justice, be applied to him; that it was more glorious to have extended the limits of human wit, than to have enlarged the bounds of the Roman world. Sir Francis Bacon really did so: a truth acknowledged not only by the greatest private names in Europe, but by all the public societies of it's most civilized nations. France, Italy, Germany, Britain, I may add even Russia, have taken him for their leader, and submitted to be governed by his institutions. The empire he has erected in the learned world is as universal as the free use of reason: and one must continue, till the other is no more.

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THE LONDON AND WEST INDIA MERCHANTS

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PHILOSOPHICAL  
WORKS.

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THE  
TWO BOOKS

OF  
FRANCIS BACCON,  
OF THE

PROFICIENCE and ADVANCEMENT

OF

LEARNING,  
DIVINE and HUMAN.

TO THE KING.



131  
130  
129  
128  
127  
126  
125  
124

У

ДОГ

ДОЛНКИМС

ДІАІЕ ЧОПЛИУИ

ГЕВАНІИД

ОБ

БКОГІСІЕСІУДІУІСІМІІІ

ОБІІІЕ

ЕКУИСІГ ВУСОИ

ОБ

АМОВООКС

ЛНЕ

АОВ

К

С

ВНІВООРНІСІУОКС

СОИТЕИС



# C O N T E N T S.

## PHILOSOPHICAL WORKS.

OF THE PROFICIENCE AND ADVANCEMENT OF LEARNING, divine and human.

### BOOK I.

|                                                                       |        |
|-----------------------------------------------------------------------|--------|
| THE Objections against Learning considered                            | Page 2 |
| The Objections of Divines                                             | ibid.  |
| The Objections of Politicians                                         | 4      |
| Objections drawn from the Fortune, Manners, or Studies of Learned Men | 8      |
| The Disjuncts of Learning                                             | 11     |
| The Dignity of Learning                                               | 18     |

### BOOK II.

|                                                                                                                                                                                                             |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Publick Obstacles to Learning considered                                                                                                                                                                    | 32     |
| The Distribution of Knowledge into particular Sciences                                                                                                                                                      | 35     |
| Knowledge divided, according to Man's three principal Faculties, into, I. HISTORY, which relates to Memory. II. POESY, which flows from the Imagination. III. PHILOSOPHY, which is the Produce of Reasoning | 35     |
| HISTORY divided into, 1. Natural. 2. Civil. ibid.                                                                                                                                                           | 35     |
| Natural History is of three sorts, 1. The History of Generations. 2. Of Preter-generations. 3. Of Arts and Inventions.                                                                                      | 36     |
| Civil History divided into, 1. Memoirs. 2. Just History. 3. Antiquities                                                                                                                                     | 37     |
| Just History divided into Chronicles, Lives, and Narratives or Relations                                                                                                                                    | 38     |
| History divided also into Annals and Journals                                                                                                                                                               | 40     |
| History Ecclesiastical divided into, the History of the Church; the History of Prophecy; and the History of Providence                                                                                      | 41     |
| Appendices to History: Speeches, Letters, Apophthegms                                                                                                                                                       | ib.    |
| POETRY divided into, 1. Narrative. 2. Dramatical. 3. Parabolical                                                                                                                                            | 42     |
| PHILOSOPHY divided into three Branches, 1. Divine. 2. Natural. 3. Human                                                                                                                                     | 43, 44 |
| The Trunk of all, a primitive or summary Philosophy                                                                                                                                                         | 44     |
| Divine Philosophy, or natural Theology, relates to the Being and Attributes of God; and the Nature of Angels or Spirits                                                                                     | 44     |
| Natural Philosophy divided into Speculative and Practical                                                                                                                                                   | 46     |
| Speculative Philosophy, or natural Sciences, divided into Physics and Metaphysics                                                                                                                           | ibid.  |
| Physics divided into, 1. The Doctrine of the Principles                                                                                                                                                     | ibid.  |

Sylva Sylvarum; or a NATURAL HISTORY, in ten Centuries.

### CENTURY I.

|                                                      |       |
|------------------------------------------------------|-------|
| Of straining or percolation, outward and inward      | 115   |
| Of motion upon pressure                              | ibid. |
| Of separations of bodies liquid, by weight           | 117   |
| Of insusons, in water and air                        | ibid. |
| Of the appetite of continuation in liquids           | 118   |
| Of artificial springs                                | 119   |
| Of the venomous quality of man's flesh               | ibid. |
| Of turning air into water                            | ibid. |
| Of helping or altering the shape of the body         | 120   |
| Of condensing of air, to yield weight or nourishment | ib.   |
| Of flame and air commixed                            | 121   |
| Of the secret nature of flame                        | ibid. |
| Of flame, in the midst, and on the sides             | 122   |
| Of motion of gravity                                 | ibid. |
| Of contraction of bodies in bulk                     | ibid. |
| Of making vines more fruitful                        | ibid. |
| Of the several operations of purging medicines       | 123   |
| Of meats and drinks most nourishing                  | 124   |
| Of medicines applied in order                        | 128   |
| Of cure by cussion                                   | ibid. |
| Of cure by excess                                    | ibid. |
| Of cure by motion of consent                         | ibid. |
| Of cure of diseases contrary to predilection         | 129   |
| Of preparation before and after purging              | ibid. |
| Vol. I.                                              |       |

### CENTURY II.

|                                                       |       |
|-------------------------------------------------------|-------|
| Of flanching blood                                    | ibid. |
| Of change of aliments and medicines                   | 130   |
| Of diets                                              | ibid. |
| Of production of cold                                 | ibid. |
| Of turning air into water                             | 131   |
| Of induration of bodies                               | 132   |
| Of prying of air upon water                           | 134   |
| Of the force of union                                 | ibid. |
| Of making feathers and hairs of divers colours        | ibid. |
| Of nourishment of young creatures in the eggs or womb | 135   |
| Of sympathy and antipathy                             | ibid. |
| Of the spirits, or pneumatics in bodies               | ibid. |
| Of the power of heat                                  | 136   |
| Of impossibility of annihilation                      | 137   |
| Of music                                              | 138   |
| Of the nullity and entity of sounds                   | 140   |
| Of production, conservation, and delation of sounds   | 142   |
| Of magnitude, extensity, and damp of sounds           | 144   |
| Of loudness and softness of sounds                    | 147   |
| Of communication of sounds                            | 148   |
| Of equality and inequality of sounds                  | ibid. |
| Of more treble and base tones                         | 149   |
| Of proportion of treble and base                      | 150   |
| Of exterior and interior sounds                       | 151   |
| Of                                                    |       |



# CONTENTS.

|                                                                                                |       |                                                                                                                        |       |
|------------------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------|-------|
| <i>Of articulation of sounds</i>                                                               | ibid. | <i>Of all manner of composts and helps for ground</i>                                                                  | 212   |
| CENTURY III.                                                                                   |       |                                                                                                                        |       |
| <i>Of the lines in which sounds move</i>                                                       | 153   | <i>Of the affinities and differences between plants, and bodies inanimate</i>                                          | 214   |
| <i>Of the lasting or perishing of sounds</i>                                                   | 154   | <i>Of affinities and differences between plants and living creatures, and of the consensers and partiticks of both</i> | 215   |
| <i>Of the passage in interception of sounds</i>                                                | 155   | <i>Of plants experiments promiscuous</i>                                                                               | ibid. |
| <i>Of the medium of sounds</i>                                                                 | 156   | <i>Of the healing of wounds</i>                                                                                        | 225   |
| <i>Of the figures of bodies yielding sounds</i>                                                | 157   | <i>Of fat dissolved in flesh</i>                                                                                       | ibid. |
| <i>Of mixture of sounds</i>                                                                    | 158   | <i>Of ripening drink speedily</i>                                                                                      | ibid. |
| <i>Of mellow action of sounds</i>                                                              | 159   | <i>Of piosity and plumage</i>                                                                                          | ibid. |
| <i>Of imitation of sounds</i>                                                                  | 160   | <i>Of the quickness of motion in birds</i>                                                                             | ibid. |
| <i>Of reflection of sounds</i>                                                                 | 163   | <i>Of the clearness of the sea, the north wind blowing</i>                                                             | 226   |
| <i>Of consent and dissent between audibles and visibles</i>                                    | 164   | <i>Of the different heats of fire and boiling water</i>                                                                | ibid. |
| <i>Of sympathy and antipathy of sounds</i>                                                     | 165   | <i>Of the qualification of heat by moisture</i>                                                                        | ibid. |
| <i>Of hindering or helping of hearing</i>                                                      | 166   | <i>Of yawning</i>                                                                                                      | ibid. |
| <i>Of the spiritual and fine nature of sounds</i>                                              | ibid. | <i>Of the hicough</i>                                                                                                  | 227   |
| <i>Of orient colours in dissolutions of metals</i>                                             | ibid. | <i>Of sneezing</i>                                                                                                     | ibid. |
| <i>Of prolongation of life</i>                                                                 | ibid. | <i>Of the tenderness of the teeth</i>                                                                                  | ibid. |
| <i>Of the appetite of union in bodies</i>                                                      | ibid. | <i>Of the tongue</i>                                                                                                   | ibid. |
| <i>Of the like operations of heat and time</i>                                                 | 166   | <i>Of the mouth out of taste</i>                                                                                       | ibid. |
| <i>Of the differing operations of fire and time</i>                                            | ibid. | <i>Of some prognosticks of pestilential seasons</i>                                                                    | ibid. |
| <i>Of motions by imitation</i>                                                                 | ibid. | <i>Of special simples for medicines</i>                                                                                | 228   |
| <i>Of infectious diseases</i>                                                                  | ibid. | <i>Of Venus</i>                                                                                                        | ibid. |
| <i>Of the incorporation of powders and liquors</i>                                             | ib.   | <i>Of the insecta, or creatures bred of putrefaction</i>                                                               | ibid. |
| <i>Of exercise of the body, and the benefits or evils thereof</i>                              | 167   | <i>Of leaping</i>                                                                                                      | 230   |
| <i>Of meats soon glutting, or not glutting</i>                                                 |       | <i>Of the pleasures and displeasures of hearing, and of the other senses.</i>                                          | ibid. |
| CENTURY IV.                                                                                    |       |                                                                                                                        |       |
| <i>Of clarification of liquor, and the acceleration thereof</i>                                | 168   |                                                                                                                        |       |
| <i>Of maturation, and the accelerating thereof, and of the maturation of drinks and fruits</i> | 169   |                                                                                                                        |       |
| <i>Of making gold</i>                                                                          | 171   | CENTURY VIII.                                                                                                          |       |
| <i>Of the several natures of gold</i>                                                          | 172   | <i>Of veins of earth medicinal</i>                                                                                     | 232   |
| <i>Of inducing and accelerating putrefaction</i>                                               | ibid. | <i>Of sponges</i>                                                                                                      | ibid. |
| <i>Of prohibiting and preventing putrefaction</i>                                              | 174   | <i>Of sea fish in fresh waters</i>                                                                                     | ibid. |
| <i>Of rotten wood shining</i>                                                                  | 175   | <i>Of attraction by similitude of substance</i>                                                                        | ibid. |
| <i>Of acceleration of birth</i>                                                                | 176   | <i>Of certain drinks in Turkey</i>                                                                                     | 233   |
| <i>Of acceleration of growth and stature</i>                                                   | ibid. | <i>Of sweat</i>                                                                                                        | ibid. |
| <i>Of bodies sulphureous and mercurial</i>                                                     | 177   | <i>Of the glow-worm</i>                                                                                                | 234   |
| <i>Of the chameleon</i>                                                                        | ibid. | <i>Of the impressions upon the body, from several passions of the mind</i>                                             | 234   |
| <i>Of subterrany fires</i>                                                                     | 178   | <i>Of drunkenness</i>                                                                                                  | 236   |
| <i>Of nitrous water</i>                                                                        | ibid. | <i>Of the hurt or help of wine, taken moderately</i>                                                                   | 237   |
| <i>Of congeling of air</i>                                                                     | ibid. | <i>Of caterpillars</i>                                                                                                 | ibid. |
| <i>Of congeling of water into chrisal</i>                                                      | ibid. | <i>Of the flies cantharides</i>                                                                                        | ibid. |
| <i>Of preserving the smell and colour in rose leaves</i>                                       | 179   | <i>Of lassitude</i>                                                                                                    | ibid. |
| <i>Of the lasting of flame</i>                                                                 | ibid. | <i>Of casting the skin, and shell, in some creatures</i>                                                               | 238   |
| <i>Of infusions or burials of divers bodies in earth</i>                                       | 181   | <i>Of the postures of the body</i>                                                                                     | ibid. |
| <i>Of the effects of mens bodies from several winds</i>                                        | ibid. | <i>Of pestilential years</i>                                                                                           | ibid. |
| <i>Of winter and summer sicknesses</i>                                                         | 182   | <i>Of some prognosticks of hard winters</i>                                                                            | ibid. |
| <i>Of pestilential years</i>                                                                   | ibid. | <i>Of certain medicines that condense and relieve the spirits</i>                                                      | 239   |
| <i>Of epidemical diseases</i>                                                                  | ibid. | <i>Of paintings of the body</i>                                                                                        | ibid. |
| <i>Of preservation of liquors in wells, or deep vaults</i>                                     | ibid. | <i>Of the use of bathing and anointing</i>                                                                             | ibid. |
| <i>Of stutting</i>                                                                             | 183   | <i>Of chamoletting of paper</i>                                                                                        | ibid. |
| <i>Of sweet smells</i>                                                                         | ibid. | <i>Of cattle ink</i>                                                                                                   | 240   |
| <i>Of the goodness and choice of waters</i>                                                    | 184   | <i>Of earth increasing in weight</i>                                                                                   | ibid. |
| <i>Of temperate heats under the equinoctial</i>                                                | ibid. | <i>Of sleep</i>                                                                                                        | ibid. |
| <i>Of the coloration of black and tawny moors</i>                                              | ibid. | <i>Of teeth, and hard substances in the bodies of living creatures</i>                                                 | ibid. |
| <i>Of motion after the instant of death</i>                                                    | ibid. | <i>Of the generation, and bearing of living creatures in the womb</i>                                                  | 242   |
| CENTURY V.                                                                                     |       |                                                                                                                        |       |
| <i>Of accelerating or hastening forward germination</i>                                        | 186   | <i>Of species visible</i>                                                                                              | 243   |
| <i>Of retarding or putting back germination</i>                                                | 188   | <i>Of impulsion and percussion</i>                                                                                     | ibid. |
| <i>Of mellowing, or making better, fruits and plants</i>                                       | 189   | <i>Of titillation</i>                                                                                                  | 244   |
| <i>Of compound fruits and flowers</i>                                                          | 195   | <i>Of scarcity of rain in Egypt</i>                                                                                    | ibid. |
| <i>Of sympathy and antipathy of plants</i>                                                     | ibid. | <i>Of clarification</i>                                                                                                | ibid. |
| <i>Of making herbs and fruits medicinal</i>                                                    | 198   | <i>Of plants without leaves</i>                                                                                        | ibid. |
| CENTURY VI.                                                                                    |       |                                                                                                                        |       |
| <i>Of curiosities about fruits and plants</i>                                                  | 200   | <i>Of the materials of glass</i>                                                                                       | 245   |
| <i>Of the degenerating of plants, and of their transmutation one into another</i>              | 202   | <i>Of prohibition of putrefaction, and the long conservation of bodies</i>                                             | ibid. |
| <i>Of the procreity and lowness of plants, and of artificial dwarfing them</i>                 | 204   | <i>Of abundance of nitre in certain sea-shores</i>                                                                     | 246   |
| <i>Of the rudiments of plants, and of the excellences of plants, or super-plants</i>           | 205   | <i>Of bodies borne up by water</i>                                                                                     | ibid. |
| <i>Of producing perfect plants without seed</i>                                                | 208   | <i>Of fuel consuming little or nothing</i>                                                                             | ibid. |
| <i>Of foreign plants</i>                                                                       | 209   | <i>Of cheap fuel</i>                                                                                                   | ibid. |
| <i>Of the seasons of several plants</i>                                                        | ibid. | <i>Of gathering of wind for freshness</i>                                                                              | ibid. |
| <i>Of the lasting of plants</i>                                                                | 210   | <i>Of trials of air</i>                                                                                                | ibid. |
| <i>Of several figures of plants</i>                                                            | 211   | <i>Of increasing milk in milch beasts</i>                                                                              | 247   |
| <i>Of some principal differences in plants</i>                                                 | ibid. | <i>Of sand of the nature of glass</i>                                                                                  | ibid. |
|                                                                                                |       | <i>Of the growth of coral</i>                                                                                          | ibid. |
|                                                                                                |       | <i>Of the gathering of manna</i>                                                                                       | ibid. |
|                                                                                                |       | <i>Of</i>                                                                                                              |       |







# CONTENTS.

## WORKS MORAL AND POLITICAL.

### WORKS MORAL.

|                                                         |       |                                           |       |
|---------------------------------------------------------|-------|-------------------------------------------|-------|
| <i>A Fragment of the colours of good and evil</i>       | 367   | <i>32. Of discourse</i>                   | 417   |
| <i>ESSAYS OF COUNSELS CIVIL and MORAL.</i>              |       | <i>33. Of plantations</i>                 | 418   |
| 1. <i>Of truth</i>                                      | 379   | <i>34. Of riches</i>                      | 419   |
| 2. <i>Of death</i>                                      | 380   | <i>35. Of prophecies</i>                  | 420   |
| 3. <i>Of unity in religion</i>                          | ibid. | <i>36. Of ambition</i>                    | 422   |
| 4. <i>Of revenge</i>                                    | 382   | <i>37. Of majesties and triumphs</i>      | 423   |
| 5. <i>Of adversity</i>                                  | ibid. | <i>38. Of nature in men</i>               | ibid. |
| 6. <i>Of simulation and dissimulation</i>               | 384   | <i>39. Of custom and education</i>        | 424   |
| 7. <i>Of parents and children</i>                       | 385   | <i>40. Of fortune</i>                     | 425   |
| 8. <i>Of marriage and single life</i>                   | 386   | <i>41. Of usury</i>                       | 426   |
| 9. <i>Of envy</i>                                       | ibid. | <i>42. Of youth and age</i>               | 427   |
| 10. <i>Of love</i>                                      | 388   | <i>43. Of beauty</i>                      | 428   |
| 11. <i>Of great place</i>                               | 389   | <i>44. Of deformity</i>                   | 429   |
| 12. <i>Of boldness</i>                                  | 391   | <i>45. Of buildings</i>                   | ibid. |
| 13. <i>Of goodness, and goodness of nature</i>          | ibid. | <i>46. Of gardens</i>                     | 431   |
| 14. <i>Of nobility</i>                                  | 392   | <i>47. Of negotiating</i>                 | 434   |
| 15. <i>Of seditions and troubles</i>                    | 393   | <i>48. Of followers and friends</i>       | 435   |
| 16. <i>Of atheism</i>                                   | 396   | <i>49. Of suitors</i>                     | ibid. |
| 17. <i>Of superstition</i>                              | 397   | <i>50. Of studies</i>                     | 436   |
| 18. <i>Of travel</i>                                    | 398   | <i>51. Of faction</i>                     | 437   |
| 19. <i>Of empire</i>                                    | 399   | <i>52. Of ceremonies and respects</i>     | ibid. |
| 20. <i>Of counsel</i>                                   | 401   | <i>53. Of praise</i>                      | 438   |
| 21. <i>Of delays</i>                                    | 403   | <i>54. Of vain-glory</i>                  | 439   |
| 22. <i>Of cunning</i>                                   | 404   | <i>55. Of honour and reputation</i>       | 440   |
| 23. <i>Of wisdom for a man's self</i>                   | 405   | <i>56. Of judicature</i>                  | ibid. |
| 24. <i>Of innovations</i>                               | 406   | <i>57. Of anger</i>                       | 442   |
| 25. <i>Of dispatch</i>                                  | ibid. | <i>58. Of vicissitude of things</i>       | 443   |
| 26. <i>Of seeming wise</i>                              | 407   |                                           | 445   |
| 27. <i>Of friendship</i>                                | 408   |                                           | 447   |
| 28. <i>Of expence</i>                                   | 411   | <i>A fragment of an essay on fame</i>     | 449   |
| 29. <i>Of the true greatness of kingdoms and states</i> | ibid. | <i>Ornamenta Rationalia</i>               | 481   |
| 30. <i>Of regiment of health</i>                        | 416   | <i>Short notes for civil conversation</i> | 485   |
| 31. <i>Of suspicion</i>                                 | ibid. | <i>An essay on death</i>                  | 486   |

### WORKS POLITICAL.

|                                                                                                                                                                                                                                                                                                                                                                                             |     |                                                                                                                                                                                                                                                             |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <i>MR. Bacon's discourse in praise of his sovereign</i>                                                                                                                                                                                                                                                                                                                                     | 498 | <i>the earl of Northampton, at a conference concerning the petition of the merchants upon the Spanish grievances</i>                                                                                                                                        | 663 |
| <i>Certain observations upon a libel, intitled, A declaration of the true causes of the great troubles presupposed to be intended against the realm of England</i>                                                                                                                                                                                                                          | 507 | <i>When Proctor relating to the penal laws</i>                                                                                                                                                                                                              | 671 |
| <i>A true report of the detestable treason, intended by doctor Rodrigo Lopez, a physician attending upon the person of the queen's majesty</i>                                                                                                                                                                                                                                              | 537 | <i>A speech used to the king by his majesty's solicitor, being chosen by the commons, as their mouth and messenger, for the presenting to his majesty the instrument or writing of their grievances</i>                                                     | 675 |
| <i>An apology of the earl of Essex; against those which jealously and maliciously tax him to be the hinderer of the peace and quiet of his country</i>                                                                                                                                                                                                                                      | 544 | <i>A speech used unto the lords at a conference by commissioners from the commons, moving and persuading the lords to join with the commons in petition to the king, to obtain liberty to treat of a composition with his majesty for wards and tenures</i> | 676 |
| <i>The proceedings of the earl of Essex</i>                                                                                                                                                                                                                                                                                                                                                 | 560 | <i>A frame of declaration for the master of the wards at his first sitting</i>                                                                                                                                                                              | 678 |
| <i>A declaration of the practices and treasons attempted and committed by Robert earl of Essex and his complices, against her majesty and her kingdoms; and of the proceedings as well at the arraignment of the said late earl and his adherents, as after, together with the very confessions, and other parts of the evidences themselves, word for word, taken out of the originals</i> | 568 | <i>Directions for the master of the wards to observe, for his majesty's better service, and the general good</i>                                                                                                                                            | 679 |
| <i>The apology of Sir Francis Bacon, in certain imputations concerning the late earl of Essex</i>                                                                                                                                                                                                                                                                                           | 605 | <i>A speech persuading the house of commons to desist from further question of receiving the king's messengers by their speaker, and from the body of the council, as well as from the king's person</i>                                                    | 681 |
| <i>A speech in parliament, 39 of Elizabeth, upon the motion of subsidy</i>                                                                                                                                                                                                                                                                                                                  | 616 | <i>An argument in the lower house of parliament, proving the king's right of imprisonments on merchandizes imported and exported</i>                                                                                                                        | 683 |
| <i>A proclamation drawn for his majesty's first coming in</i>                                                                                                                                                                                                                                                                                                                               | 618 | <i>A brief speech persuading some supply to be given to his majesty</i>                                                                                                                                                                                     | 687 |
| <i>A draught of a proclamation touching his majesty's style</i>                                                                                                                                                                                                                                                                                                                             | 621 | <i>A certificate to the lords of the council, upon information given touching the scarcity of silver at the mint</i>                                                                                                                                        | 688 |
| <i>A speech made by Sir Francis Bacon, knight, chosen by the commons to present a petition touching purveyors</i>                                                                                                                                                                                                                                                                           | 624 | <i>Advice to the king touching Mr. Sutton's estate</i>                                                                                                                                                                                                      | 691 |
| <i>A brief discourse of the happy union of the kingdoms of England and Scotland</i>                                                                                                                                                                                                                                                                                                         | 627 | <i>A speech in the lower house, when the house was in great heat about the undertakers</i>                                                                                                                                                                  | 696 |
| <i>Certain articles or considerations touching the union of the kingdoms of England and Scotland</i>                                                                                                                                                                                                                                                                                        | 633 | <i>A speech in parliament, being lord chancellor, to the speaker's excuse</i>                                                                                                                                                                               | 699 |
| <i>The certificate or return of the commissioners of England and Scotland, authorised to treat of an union</i>                                                                                                                                                                                                                                                                              | 642 | <i>Of the true greatness of the kingdom of Britain</i>                                                                                                                                                                                                      | 703 |
| <i>A speech in the house of commons concerning the article of the general naturalization of the Scottish nation</i>                                                                                                                                                                                                                                                                         | 644 | <i>Advice to Sir George Villiers, afterwards duke of Buckingham, when he became favourite to king James</i>                                                                                                                                                 | 712 |
| <i>A speech in the lower house of parliament, by occasion of a motion concerning the union of laws</i>                                                                                                                                                                                                                                                                                      | 654 | <i>Advertisement touching a boy war</i>                                                                                                                                                                                                                     | 733 |
| <i>Considerations touching the plantation in Ireland</i>                                                                                                                                                                                                                                                                                                                                    | 657 | <i>Notes of a speech concerning a war with Spain</i>                                                                                                                                                                                                        | 743 |
| <i>A report in the house of commons, of a speech delivered by the earl of Salisbury; and another speech delivered by</i>                                                                                                                                                                                                                                                                    |     | <i>Considerations touching a war with Spain</i>                                                                                                                                                                                                             | 746 |



THE  
FIRST BOOK

OF

FRANCIS BACON:

OF THE

PROFICIENCE and ADVANCEMENT

OF

LEARNING,

DIVINE and HUMAN.

TO THE KING.

**T**HERE were under the law (excellent king) both daily sacrifices, and free-will offerings: the one proceeding upon ordinary observance, the other upon a devout cheerfulness: In like manner there belongeth to kings from their servants, both tribute of duty, and presents of affection. In the former of these, I hope, I shall not live to be wanting, according to my most humble duty, and the good pleasure of your majesty's employments: for the latter, I thought it more respective to make choice of some oblation, which might rather refer to the propriety and excellency of your individual person, than to the busyness of your crown and state.

Wherefore representing your majesty many times unto my mind, and beholding you not with the inquisitive eye of presumption, to discover that which the Scripture telleth me is inscrutable, but with the observant eye of duty and admiration: leaving aside the other parts of your virtue and fortune, I have been touched, yea, and possessed with an extreme wonder at those your virtues and faculties, which the philosophers call intellectual: the largeness of your capacity, the faithfulness of your memory, the swiftness of your apprehension, the penetration of your judgment, and the facility and order of your elocution: and I have often thought, that of all the persons living, that I have known, your majesty were the best instance to make a man of Plato's opinion, that all knowledge is but remembrance, and that the mind of man by nature knoweth all things, and hath but her own native and original notions (which by the strangeness and darkness of this tabernacle of the body are sequestered) again revived and restored: such a light of nature I have observed in your majesty, and such a readiness to take flame, and blaze from the least occasion presented, or the least spark of another's knowledge delivered. And as the Scripture saith of the wisest king, *That his heart was as the sands of the sea*; which though it be one of the largest bodies, yet it consisteth of the smallest and finest portions: so hath God given your majesty a composition of understanding admirable, being able to compass and comprehend the greatest matters, and nevertheless to touch and apprehend the least; whereas it should seem an impossibility in nature, for the same instrument to make itself fit for great and small works. And for your gift of speech, I call to mind what Cornelius

Vol. I.

B

Tacitus



Tacitus saith of Augustus Caesar; *Augusto profuens, et quæ principem deceret, eloquentia fuit*: For, if we note it well, speech that is uttered with labour and difficulty, or speech that savoureth of the affectation of art and precepts, or speech that is framed after the imitation of some pattern of eloquence, though never so excellent; all this hath somewhat servile, and holding of the subject. But your majesty's manner of speech is indeed prince-like, flowing as from a fountain, and yet streaming and branching itself into nature's order, full of facility and fertility, imitating none, and imitable by any. And as in your civil estate there appeareth to be an emulation and contention of your majesty's virtue with your fortune; a virtuous disposition with a fortunate regiment; a virtuous expectation (when time was) of your greater fortune, with a prosperous possession thereof in the due time; a virtuous observation of the laws of marriage, with most blessed and happy fruit of marriage; a virtuous and most christian desire of peace, with a fortunate inclination in your neighbour princes thereunto; so likewise, in these intellectual matters, there seemeth to be no less contention between the excellency of your majesty's gifts of nature, and the universality and perfection of your learning. For I am well assured, that this which I shall say is no amplification at all, but a positive and measured truth; which is, that there hath not been since Christ's time any king or temporal monarch, which hath been so learned in all literature and erudition, divine and human. For let a man seriously and diligently revolve and peruse the succession of the emperors of Rome, of which Caesar the dictator, who lived some years before Christ, and Marcus Antoninus were the best learned; and so descend to the emperors of Græcia, or of the West; and then to the lines of France, Spain, England, Scotland, and the rest, and he shall find this judgment is truly made. For it seemeth much in a king, if, by the compendious extractions of other mens wits and labours, he can take hold of any superficial ornaments and shews of learning; or if he countenance and prefer learning and learned men: but to drink indeed of the true fountains of learning; nay, to have such a fountain of learning in himself, in a king, and in a king born, is almost a miracle. And the more, because there is met in your majesty a rare conjunction, as well of divine and sacred literature, as of prophane and human; so as your majesty standeth invested of that triplicity, which in great veneration was ascribed to the ancient Hermes: the power and fortune of a king, the knowledge and illumination of a priest, and the learning and universality of a philosopher. This propriety inherent and individual attribute in your majesty deserveth to be expressed, not only in the same and admiration of the present time, nor in the history or tradition of the ages succeeding; but also in some solid work, fixed memorial, and immortal monument, bearing a character or signature, both of the power of a king, and the difference and perfection of such a king.

Therefore I did conclude with myself, that I could not make unto your majesty a better oblation, than of some treatise tending to that end, whereof the sum will consist of these two parts: the former concerning the excellency of learning and knowledge, and the excellency of the merit and true glory in the augmentation and propagation thereof: the latter, what the particular acts and works are, which have been embraced and undertaken for the advancement of learning; and again, what defects and undervalues I find in such particular acts: To the end, that though I cannot positively or affirmatively advise your majesty, or propound unto you framed particulars; yet I may excite your princely cogitations to visit the excellent treasure of your own mind, and thence to extract particulars for this purpose, agreeable to your magnanimity and wisdom.

IN the entrance to the former of these, to clear the way, and, as it were, to make silence, to have the true testimonies concerning the dignity of learning to be better heard, without the interruption of tacit objections; I think good to deliver it from the discredits and disgraces which it hath received, all from ignorance; but ignorance severally disguised, appearing sometimes in the zeal and jealousy of divines, sometimes in the severity and arrogancy of politicians, and sometimes in the errors and imperfections of learned men themselves.

I hear the former sort say, that knowledge is of those things which are to be accepted of with great limitation and caution; that the aspiring to overmuch knowledge,



ledge, was the original temptation and sin, whereupon ensued the fall of man; that knowledge hath in it somewhat of the serpent, and therefore where it entreteth into a man, it makes him swell; *Scientia inflat*: that Solomon gives a censure, *That there is no end of making books, and that much reading is weariness of the flesh*; and again in another place, *That in spacious knowledge there is much contrivation, and that he that increaseth knowledge increaseth anxiety*; that St. Paul gives a caveat, *That we be not spoiled through vain philosophy*; that experience demonstrates how learned men have been arch-hereticks, how learned times have been inclined to atheism, and how the contemplation of second causes doth derogate from our dependance upon God, who is the first cause.

To discover then the ignorance and error of this opinion, and the misunderstanding in the grounds thereof, it may well appear these men do not observe or consider, that it was not the pure knowledge of nature and universality, a knowledge by the light whereof man did give names unto other creatures in paradise, as they were brought before him, according unto their proprieties, which gave the occasion to the fall; but it was the proud knowledge of good and evil, with an intent in man to give law unto himself, and to depend no more upon God's commandments, which was the form of the temptation. Neither is it any quantity of knowledge, how great soever, that can make the mind of man to swell; for nothing can fill, much less extend the soul of man, but God, and the contemplation of God; and therefore Solomon, speaking of the two principal senses of inquiry, the eye, and the ear, affirmeth that the eye is never satisfied with seeing, nor the ear with hearing; and if there be no fulness, then is the continent greater, than the content: so of knowledge itself, and the mind of man, wheretoe the senses are but reporters, he defineth likewise in these words, placed after that kalendar or ephemerides, which he maketh of the diversities of times and seasons for all actions and purposes; and concludeth thus: *God hath made all things beautiful, or decent, in the true return of their seasons*: Also he hath placed the world in man's heart, yet cannot man find out the work which God worketh from the beginning to the end: declaring not obscurely, that God hath framed the mind of man as a mirror, or glass, capable of the image of the universal world, and joyful to receive the impression thereof, as the eye joyeth to receive light; and not only delighted in beholding the variety of things, and vicissitude of times, but raised also to find out and discern the ordinances and decrees, which throughout all those changes are infallibly observed. And although he doth insinuate, that the supreme or summary law of nature, which he calleth, *The work which God worketh from the beginning to the end, is not possible to be found out by man*; yet that doth not derogate from the capacity of the mind, but may be referred to the impediments, as of shortness of life, ill conjunction of labours, ill tradition of knowledge over from hand to hand, and many other inconveniences, whereunto the condition of man is subject. For that nothing parcel of the world is denied to man's inquiry and invention, he doth in another place rule over, when he saith, *The spirit of man is as the lamp of God, whereby he searcheth the inwardness of all secrets*. If then such be the capacity and receipt of the mind of man, it is manifest, that there is no danger at all in the proportion or quantity of knowledge, how large soever, lest it should make it swell or out-compas itself; no, but it is merely the quality of knowledge, which, be it in quantity more or less, if it be taken without the true corrective thereof, hath in it some nature of venom or malignity, and some effects of that venom, which is ventosity or swelling. This corrective spice, the mixture whereof maketh knowledge so sovereign, is charity, which the apostle immediately addeth to the former clause; for so he saith, *knowledge bloweth up, but charity buildeth up*; not unlike unto that which he delivereth in another place: *If I spake, saith he, with the tongues of men and angels, and had not charity, it were but as a tinkling cymbal*; not but that it is an excellent thing to speak with the tongues of men and angels, but because, if it be sever'd from charity, and not referred to the good of men and mankind, it hath rather a sounding and unworthy glory, than a meriting and substantial virtue. And as for that censure of Solomon, concerning the excess of writing and reading books, and the anxiety of spirit which redoundeth from knowledge; and that admonition of St. Paul, *That we be not seduced by vain philosophy*; let those places be rightly understood,



deftood, and they do indeed excellently fet forth the true bounds and limitations, whereby human knowledge is confined and circumscribed; and yet without any such contracting or coarctation, but that it may comprehend all the universal nature of things: for these limitations are three: the first, that we do not so place our felicity in knowledge, as we forget our mortality. The second, that we make application of our knowledge to give ourselves repose and contentment, and not distaste or repining. The third, that we do not presume by the contemplation of nature to attain to the mysteries of God; for as touching the first of these, Solomon doth excellently expound himself in another place of the same book, where he saith; *I saw well that knowledge recedeth as far from ignorance, as light doth from darkness; and that the wise man's eyes keep watch in his bed, whereas the fool roundeth about in darkness: but wistful I learned, that the same mortality involveth them both.* And for the second, certain it is, there is no vexation or anxiety of mind which resulteth from knowledge, otherwise than merely by accident; for all knowledge, and wonder (which is the seed of knowledge) is an impression of pleasure in itself: but when men fall to framing conclusions out of their knowledge, applying it to their particular, and ministering to themselves thereby weak fears, or vast desires, there groweth that carefulness and trouble of mind which is spoken of: for then knowledge is no more *Lumen siccum*, whereof Heraclitus the profound said, *Lumen siccum optima anima*; but it becometh *Lumen madidum*, or *maceratum*, being steeped and infused in the humours of the affections. And as for the third point, it deserveth to be a little stood upon, and not to be lightly passed over: for if any man shall think by view and enquiry into these sensible and material things to attain that light, whereby he may reveal unto himself the nature or will of God; then indeed is he spoiled by vain philosophy: for the contemplation of God's creatures and works produceth (having regard to the works and creatures themselves) knowledge; but, having regard to God, no perfect knowledge, but wonder, which is broken knowledge. And therefore it was most aptly said by one of Plato's school, "That the sense of man carrieth a resemblance with the sun, which, as we see, openeth and revealeth " all the terrestrial globe; but then again it obscureth and concealeth the stars and " celestial globe: so doth the sense discover natural things, but it darkeneth and " shutteth up divine." And hence it is true, that it hath proceeded, that divers great learned men have been heretical, whilst they have sought to fly up to the secrets of the Deity by the waxen wings of the senses: and as for the conceit, that too much knowledge should incline a man to atheism, and that the ignorance of second causes should make a more devout dependance upon God, which is the first cause: First, it is good to ask the question which Job asked of his friends: *Will you lye for God, as one man will do for another, to gratify him?* For certain it is, that God worketh nothing in nature but by second causes; and if they would have it otherwise believed, it is mere impoſture, as it were in favour towards God; and nothing else but to offer to the author of truth, the unclean sacrifice of a lye. But farther, it is an assured truth, and a conclusion of experience, that a little or superficial knowledge of philosophy may incline the mind of man to atheism, but a farther proceeding therein doth bring the mind back again to religion; for in the entrance of philosophy, when the second causes, which are next unto the senses, do offer themselves to the mind of man, if it dwell and stay there, it may induce some oblivion of the highest cause; but when a man passeth on farther, and seeth the dependance of causes, and the works of providence; then, according to the allegory of the poets, he will easily believe that the highest link of nature's chain must needs be tied to the foot of Jupiter's chair. To conclude therefore: let no man, upon a weak conceit of sobriety, or an ill-applied moderation, think or maintain, that a man can search too far, or be too well studied in the book of God's word, or in the book of God's works; divinity or philosophy; but rather let men endeavour an endless progress, or proficience in both; only let men beware that they apply both to charity, and not to swelling; to use, and not to ostentation; and again, that they do not unwisely mingle, or confound these learnings together.

AND as for the disgraces which learning receiveth from politicians, they be of this nature; that learning doth soften mens minds, and makes them more unapt for



for the honour and exercise of arms; that it doth mar and pervert mens dispositions for matter of government and policy, in making them too curious and irresolute by variety of reading, or too peremptory or positive by strictness of rules and axioms, or too immoderate and overweening by reason of the greatness of examples, or too incompatible and differing from the times, by reason of the dissimilitude of examples; or at least, that it doth divert mens travels from action and business, and bringeth them to a love of leisure and privateness; and that it doth bring into states a relaxation of discipline, whilst every man is more ready to argue, than to obey and execute. Out of this conceit, Cato, surnamed the Censor, one of the wisest men indeed that ever lived, when Carneades the philosopher came in embassage to Rome, and that the young men of Rome began to flock about him, being allured with the sweetness and majesty of his eloquence and learning, gave counsel in open senate, that they should give him his dispatch with all speed, lest he should infect and enchant the minds and affections of the youth, and at unawares bring in an alteration of the manners and customs of the state. Out of the same conceit, or humour, did Virgil, turning his pen to the advantage of his country, and the disadvantage of his own profession, make a kind of separation between policy and government, and between arts and sciences, in the verses so much renowned, attributing and challenging the one to the Romans, and leaving and yielding the other to the Grecians, *Tu regere imperio populos, Romane, memento, Hæc tibi erunt artes, etc.* So likewise we see that Anytus, the accuser of Socrates, laid it, as an article of charge and accusation against him, that he did, with the variety and power of his discourses and disputations, withdraw young men from due reverence to the laws and customs of their country; and that he did profess a dangerous and pernicious science, which was, to make the worse matter seem the better, and to suppress truth by force of eloquence and speech.

But these, and the like imputations have rather a countenance of gravity, than any ground of justice: for experience doth warrant, that, both in persons and in times, there hath been a meeting, and concurrence in learning and arms, flourishing and excelling in the same men, and the same ages. For, as for men, there cannot be a better nor the like instance, as of that pair, Alexander the Great, and Julius Cæsar the dictator; whereof the one was Aristotle's scholar in philosophy, and the other was Cicero's rival in eloquence: or, if any man had rather call for scholars, that were great generals, than generals that were great scholars, let him take Epaminondas the Theban, or Xenophon the Athenian; whereof the one was the first that abated the power of Sparta, and the other was the first that made way to the overthrow of the monarchy of Persia. And this concurrence is yet more visible in times than in persons, by how much an age is greater object than a man. For both in Egypt, Assyria, Persia, Græcia, and Rome, the same times that are most renowned for arms, are likewise most admired for learning; so that the greatest authors and philosophers, and the greatest captains and governors have lived in the same ages. Neither can it otherwise be: for as, in man, the ripeness of strength of the body and mind cometh much about an age, save that the strength of the body cometh somewhat the more early; so, in states, arms, and learning, whereof the one correspondeth to the body, the other to the soul of man, have a concurrence or near sequence in times.

And for matter of policy and government, that learning should rather hurt, than enable thereunto, is a thing very improbable: we see it is accounted an error, to commit a natural body to empiricks physicians, which commonly have a few pleasing receipts, whereupon they are confident and adventurous, but know neither the causes of diseases, nor the complexions of patients, nor peril of accidents, nor the true method of cures: we see it is a like error to rely upon advocates or lawyers, which are only men of practice, and not grounded in their books, who are many times easily surprised, when matter falleth out besides their experience, to the prejudice of the causes they handle: so, by like reason, it cannot be but a matter of doubtful consequence, if states be managed by empirick statesmen, not well mingled with men grounded in learning. But contrariwise, it is almost without instance contradictory, that ever any government was disastrous, that was in the hands of learned governors. For howsoever it hath been ordinary with



politick men to extenuate and disabie learned men by the names of pedants; yet in the records of time it appeareth, in many particulars, that the governments of princes in minority (notwithstanding the infinite disadvantage of that kind of state) have nevertheless excelled the government of princes of mature age, even for that reason which they seek to traduce, which is, that by that occasion the state hath been in the hands of pedants: for so was the state of Rome for the first five years, which are so much magnified, during the minority of Nero, in the hands of Seneca, a pedant: so it was again, for ten years space or more, during the minority of Gordianus the younger, with great applause and contentation in the hands of Missitheus, a pedant: so was it, before that, in the minority of Alexander Severus, in like hapiness, in hands not much unlike, by reason of the rule of the women, who were aided by the teachers and preceptors. Nay, let a man look into the government of the bishops of Rome, as by name, into the government of Pius Quintus, and Sextus Quintus, in our times, who were both at their entrance esteemed but as pedantical friars, and he shall find that such popes do greater things, and proceed upon truer principles of state, than those which have ascended to the papacy from an education and breeding in affairs of state, and courts of princes; for although men bred in learning are perhaps to seek in points of convenience, and accommodating for the present, which the Italians call *ragioni di stato*, whereof the same Pius Quintus could not hear spoken with patience, terming them inventions against religion and the moral virtues; yet on the other side, to recompense that, they are perfect in those same plain grounds of religion, justice, honour, and moral virtue, which if they be well and watchfully pursued, there will be seldom use of those other, no more than of physick in a sound or well-dieted body. Neither can the experience of one man's life furnish examples and precedents for the events of one man's life: for as it happeneth sometimes that the grandchild, or other descendant, resembleth the ancestor, more than the son; so many times occurrences of present times may sort better with ancient examples, than with those of the later, or immediate times: and lastly, the wit of one man can no more countervail learning, than one man's means can hold way with a common purse.

And as for those particular seducements, or indispositions of the mind for policy and government, which learning is pretended to insinuate; if it be granted that any such thing be, it must be remembered withal, that learning ministrereth in every of them greater strength of medicine or remedy, than it offereth cause of indisposition or infirmity: for if, by a secret operation, it make men perplexed and irresolute, on the other side, by plain precept, it teacheth them when, and upon what ground to resolve; yea, and how to carry things in suspense without prejudice, till they resolve: if it make men positive and regular, it teacheth them what things are in their nature demonstrative, and what are conjectural; and as well the use of distinctions and exceptions, as the latitude of principles and rules. If it mislead by disproportion, or dissimilitude of examples, it teacheth men the force of circumstances, the errors of comparisons, and all the cautions of application; so that in all these it doth rectify more effectually, than it can pervert. And these medicines it conveyeth into mens minds much more forcibly by the quickness and penetration of examples. For let a man look into the errors of Clement the seventh, so lively described by Guicciardine, who served under him, or into the errors of Cicero, painted out by his own pencil in his epistles to Atticus, and he will fly apace from being irresolute. Let him look into the errors of Phocion, and he will beware how he be obstinate or inflexible. Let him but read the fable of Ixion, and it will hold him from being vaporous or imaginative. Let him look into the errors of Cato the second, and he will never be one of the Antipodes, to tread opposite to the present world.

And for the conceit, that learning should dispose men to leisure and privateness, and make men slothful; it were a strange thing if that, which accuseth the mind to a perpetual motion and agitation, should induce slothfulness; whereas contrariwise it may be truly affirmed, that no kind of men love busyness for itself, but those that are learned: for other persons love it for profit; as an hireling, that loves the work for the wages; or for honour, as because it beareth them up in the



the eyes of men, and refresheth their reputation, which otherwise would wear; or because it putteth them in mind of their fortune, and giveth them occasion to pleasure and displeasure; or because it exerciseth some faculty, wherein they take pride, and so entertaineth them in good humour and pleasing conceits toward themselves; or because it advanceth any other their ends. So that, as it is said of untrue valours, that some mens valours are in the eyes of them that look on; so such mens industries are in the eyes of others, or at least in regard of their own designments: only learned men love business, as an action according to nature, as agreeable to health of mind, as exercise is to health of body, taking pleasure in the action itself, and not in the purchase: so that of all men they are the most indefatigable, if it be towards any business which can hold or detain their mind.

And if any man be laborious in reading and study, and yet idle in business and action, it groweth from some weakness of body, or softness of spirit; such as Seneca speaketh of: *Quidam tam sunt umbratiles, ut putent in turbido esse, quicquid in luce est*; and not of learning: well may it be, that such a point of a man's nature may make him give himself to learning, but it is not learning that breedeth any such point in his nature.

And that learning should take up too much time or leisure: I answer: the most active, or busy man, that hath been or can be, hath (no question) many vacant times of leisure, while he expecteth the tides and returns of business (except he be either tedious and of no dispatch, or lightly and unworthily ambitious, to meddle in things that may be better done by others;) and then the question is but, how those spaces and times of leisure shall be filled and spent; whether in pleasures, or in studies; as was well answered by Demosthenes to his adversary Æschines, that was a man given to pleasure, and told him, that his orations did smell of the lamp: “Indeed (said Demosthenes) there is a great difference between the things that “you and I do by lamp-light.” So as no man need doubt, that learning will expulse business; but rather it will keep and defend the possession of the mind against idleness and pleasure, which otherwise, at unawares, may enter, to the prejudice of both.

Again, for that other conceit, that learning should undermine the reverence of laws and government, it is assuredly a mere depravation and calumny, without all shadow of truth. For to say, that a blind custom of obedience should be a surer obligation, than duty taught and understood; it is to affirm, that a blind man may tread surer by a guide, than a seeing man can by a light. And it is without all controversy, that learning doth make the minds of men gentle, generous, maniable, and pliant to government; whereas ignorance makes them churlish, thwarting, and mutinous: and the evidence of time doth clear this assertion, considering that the most barbarous, rude, and unlearned times have been most subject to tumults, seditions, and changes.

And as to the judgment of Cato the Censor, he was well punished for his blasphemy against learning, in the same kind wherein he offended; for when he was past threescore years old, he was taken with an extreme desire to go to school again, and to learn the Greek tongue, to the end to peruse the Greek authors; which doth well demonstrate, that his former censure of the Grecian learning was rather an affected gravity, than according to the inward sense of his own opinion. And as for Virgil's verses, though it pleased him to brave the world in taking to the Romans the art of empire, and leaving to others the arts of subjects; yet so much is manifest, that the Romans never ascended to that height of empire, till the time they had ascended to the height of other arts. For in the time of the two first Cæsars, which had the art of government in greatest perfection, there lived the best poet, Virgilius Maro; the best historiographer, Titus Livius; the best antiquary, Marcus Varro; and the best, or second orator, Marcus Cicero, that to the memory of man are known. As for the accusation of Socrates, the time must be remember'd when it was prosecuted; which was under the thirty tyrants, the most base, bloody, and envious persons that have governed; which revolution of state was no sooner over, but Socrates, whom they had made a person criminal, was made a person heroical, and his memory accumulate with honours

divine



divine and human: and those discourses of his, which were then termed corrupting of manners, were after acknowledged for sovereign medicines of the mind and manners, and so have been received ever since till this day. Let this therefore serve for answer to politicians, which, in their humorous severity, or in their resigned gravity, have presumed to throw imputations upon learning; which redargution, nevertheless (save that we know not whether our labours may extend to other ages) were not needful for the present, in regard of the love and reverence towards learning, which the example and countenance of two so learned princes, queen Elizabeth, and your majesty, being as Castor and Pollux, *lucida sidera*, stars of excellent light, and most benign influence, hath wrought in all men of place and authority in our nation.

Now therefore we come to that third sort of discredit, or diminution of credit, that groweth unto learning from learned men themselves, which commonly cleaveth fastest: it is either from their fortune, or from their manners, or from the nature of their studies. For the first, it is not in their power; and the second is accidental; the third only is proper to be handled: but because we are not in hand with true measure, but with popular estimation and conceit, it is not amiss to speak somewhat of the two former. The derogations therefore, which grow to learning from the fortune or condition of learned men, are either in respect of scarcity of means, or in respect of privateness of life, and meanness of employments.

Concerning want, and that it is the case of learned men usually to begin with little, and not to grow rich so fast as other men, by reason they convert not their labours chiefly to lucre and increase: It were good to leave the common place in commendation of poverty to some friar to handle, to whom much was attributed by Machiavel in this point; when he said, "That the kingdom of the clergy had been long before at an end, if the reputation, and reverence towards the poverty of friars had not borne out the scandal of the superfluities and excesses of bishops and prelates." So a man might say, that the felicity and delicacy of princes and great persons had long since turned to rudeness and barbarism, if the poverty of learning had not kept up civility and honour of life: but, without any such advantages, it is worthy the observation, what a reverend and honoured thing poverty of fortune was, for some ages, in the Roman state, which nevertheless was a state without paradoxes: for we see what Titus Livius saith in his introduction: *Cacterum aut me amor negotii suscepti fallit, aut nulla unquam respublica nec major, nec sanctior, nec bonis exemplis ditior fuit; nec in quam tam serae acerrima luxuriaque immigraverint; nec ubi tantus ac tam diu paupertati ac parsimoniae bonos fuerit.* We see likewise, after that the state of Rome was not itself, but did degenerate, how that person, that took upon him to be counsellor to Julius Caesar, after his victory, where to begin his restoration of the state, maketh it of all points the most summary to take away the estimation of wealth: *Verm haec, et omnia mala pariter cum honore pecuniae desinent, si neque magistratus, neque alia vulgo cupienda, venalia erunt.* To conclude this point, as it was truly said, that *rubor est virtutis color*, though sometime it come from vice: so it may be fitly said, that *paupertas est virtutis fortuna*; though sometimes it may proceed from misgovernment and accident. Surely Solomon hath pronounced it both in censure, *Qui festinat ad divitias, non erit insons; and in precept; Buy the truth, and sell it not; and so of wisdom and knowledge; judging that means were to be spent upon learning, and not learning to be applied to means.* And as for the privateness, or obscurity (as it may be in vulgar estimation accounted) of life of contemplative men; it is a theme so common, to extol a private life not taxed with sensuality and sloth, in comparison, and to the disadvantage of a civil life, for safety, liberty, pleasure, and dignity, or at least freedom from indignity, as no man handleth it, but handleth it well: such a consonancy it hath to mens conceits in the expressing, and to mens consents in the allowing. This only I will add, that learned men, forgotten in states, and not living in the eyes of men, are like the images of Cassius and Brutus in the funeral of Junia; of which not being represented, as many others were, Tacitus saith, *Eo ipso praefulgabant, quod non visebantur.*

And



## Book I.

And for meaneſ of employment, that which is moſt traduced to contempt, is, that the government of youth is commonly allotted to them; which age, becauſe it is the age of leaſt authority, it is transferred to the diſſeeming of thoſe employments wherein youth is converſant, and which are converſant about youth. But how unjuſt this traducement is (if you will reduce things from popularity of opinion to meaſure of reaſon) may appear in that, we ſee, men are more curious what they put into a new veſſel, than into a veſſel ſeaſoned; and what mould they lay about a young plant, than about a plant corroborate; ſo as the weakeſt terms and times of all things uſe to have the beſt applications and helps. And will you hearken to the Hebrew Rabbins? *Your young men ſhall ſee viſions, and your old men ſhall dream dreams*: ſay they, youth is the worthier age, for that viſions are nearer apparitions of God, than dreams. And let it be noted, that howſoever the condition of life of pedants hath been ſcorned upon theatres, as the ape of tyranny; and that the modern looſeneſs or negligence hath taken no due regard to the choice of ſchoolmaſters and tutors; yet the ancient wiſdom of the beſt times did always make a juſt complaint, that ſtates were too buſy with their laws, and too negligent in point of education: which excellent part of ancient diſcipline hath been in ſome ſort revived of late times, by the colleges of the Jeſuits; of whom, although in regard of their ſuperſtition I may ſay, *quo meliores, eo deteriores*; yet in regard of this, and ſome other points concerning human learning and moral matters, I may ſay, as Agelliaus ſaid to his enemy Pharnabaſus, *Talis quum ſis, utinam noſter eſſes*. And thus much touching the diſcredits drawn from the fortunes of learned men.

As touching the manners of learned men, it is a thing perſonal and individual: and no doubt there be amongst them, as in other profeſſions, of all temperatures; but yet ſo as it is not without truth, which is ſaid, that *abunde ſtudia in mores*, ſtudies have an influence and operation upon the manners of thoſe that are converſant in them.

But upon an attentive and indifferent review, I, for my part, cannot find any diſgrace to learning can proceed from the manners of learned men not inherent to them as they are learned; except it be a fault (which was the ſuppoſed fault of Demotheues, Cicero, Cato the ſecond, Seneca, and many more) that, becauſe the times they read of are commonly better than the times they live in, and the duties taught better than the duties practiſed, they contend ſometimes too far to bring things to perfection, and to reduce the corruption of manners to honeſty of precepts, or examples of too great height. And yet hereof they have caveats enough in their own walks. For Solon, when he was aſked whether he had given his citizens the beſt laws, answered wiſely, “ Yea, of ſuch as they would receive:” and Plato, finding that his own heart could not agree with the corrupt manners of his country, reſuſed to bear place or office; ſaying, “ That a man’s country was to be uſed as his parents were, that is, with humble perſuaſions, and not with conteſtations.” And Cæſar’s counſellor put in the ſame caveat, *Non ad vetera inſtituta revocans, quæ jam pridem corruptis moribus ludibrio ſunt*: and Cicero noteth this error directly in Cato the ſecond, when he writes to his friend Atticus; *Cato optime ſenit, ſed noet interdum reipublicæ; loquitur enim tanquam in republica Platonis, non tanquam in ſacæ Romuli*. And the ſame Cicero doth excuſe and expound the philoſophers for going too far, and being too exact in their preſcripts, when he ſaith; *Iſſi ipſi præceptores virtutis, et magiſtri videntur ſines officiorum paulo longius, quam natura vellet, protuliſſe, ut cum ad ultimum animo contendiſſemus, ibi tamen, ubi oportet, conſiſſeremus*: and yet himſelf might have ſaid, *Monitis ſum minor ipſe meis*; for it was his own fault, though not in ſo extreme a degree.

Another fault likewise much of this kind hath been incident to learned men; which is, that they have eſteemed the preſervation, good, and honour of their countries or maſters, before their own fortunes or ſafeties. For ſo ſaith Demotheues unto the Athenians: “ If it pleaſe you to note it, my counſels unto you are not ſuch, whereby I ſhould grow great amongst you, and you become little amongst the Grecians: but they be of that nature, as they are ſometimes not good for me to give, but are always good for you to follow.” And ſo Seneca, Vol. I.

D

after



after he had consecrated that *Quintilianum Neronis* to the eternal glory of learned governors, held on his honest and loyal sense of good and free counsel, after his master grew extremely corrupt in his government. Neither can this point otherwise be; for learning conduct mens minds with a true sense of the frailty of their persons, the casualty of their fortunes, and the dignity of their soul and vocation: so that it is impossible for them to esteem that any greatness of their own fortune can be a true or worthy end of their being and ordainment; and therefore are desirous to give their account to God, and so likewise to their masters under God (as kings and the states that they serve) in these words; *Eae ubi sumus?*, and not *Eae ubi heresi?*: whereas the corrupter sort of mere politicians, that have not their thoughts established by learning in the love and apprehension of duty, nor ever look abroad into universality, do refer all things to themselves, and thrust themselves into the centre of the world, as if all times should meet in them and their fortunes; never caring, in all tempests, what becomes of the ship of state, so they may save themselves in the cockboat of their own fortune; whereas men that feel the weight of duty, and know the limits of self-love, use to make good their places and duties, though with peril. And if they stand in seditious and violent alterations, it is rather the reverence which many times both adverse parties do give to honesty, than any versatile advantage of their own carriage. But for this point of tender sense, and fast obligation of duty, which learning doth endure the mind withal, howsoever fortune may tax it, and many in the depth of their corrupt principles may despise it, yet it will receive an open allowance, and therefore needs the less disproof or exculation.

Another fault incident continually to learned men, which may be more probably defended, than truly denied, is, that they fall sometimes in applying themselves to particular persons: which want of exact application ariseth from two causes; the one, because the largeness of their mind can hardly confine itself to dwell in the exquisite observation or examination of the nature and customs of one person: for it is a speech for a tower, and not for a wise man: *Satis ingenuum alter ubi ubi ubi ubi ubi*. Nevertheless I shall yield, that he that cannot contradict the sight of his mind, as well as disperse and dilate it, wanteth a great faculty. But there is a second cause, which is no inability, but a rejection upon choice and judgment: for the honest and just bounds of observation, by one person upon another, extend no farther, but to understand him sufficiently, whereby not to give him offence, or whereby to be able to give him faithful counsel, or whereby to stand upon reasonable guard and caution, in respect of a man's self: but to be speculative into another man, to the end to know how to work him, or wind him, or govern him, proceedeth from a heart that is double and cloven, and not entire and ingenuous; which as in friendship it is want of integrity, so towards princes or superiors, is want of duty. For the custom of the Levant, which is, that subjects do forbear to gaze or fix their eyes upon princes, is in the outward ceremony barbarous, but the moral is good: for men ought not, by cunning and bent observations, to pierce and penetrate into the hearts of kings, which the Scripture hath declared to be inexcusable.

There is yet another fault (with which I will conclude this part) which is often noted in learned men, that they do many times fall to observe decency and discretion in their behaviour and carriage, and commit errors in small and ordinary points of action, so as the vulgar sort of capacities do make a judgment of them in greater matters, by that which they find wanting in them in smaller. But this consequence doth often deceive men, for which I do refer them over to that which was said by Themistocles, arrogantly and unadvisedly being applied to himself out of his own mouth; but, being applied to the general state of this question, pertinently and justly; when, being invited to touch a lute, he said, "he could not fiddle, but he could make a small town a great state." So, no doubt, many may be well seen in the passages of government and policy, which are to seek in little and punctual occasions. I refer them also to that which Plato said of his master Socrates, whom he compared to the gallypots of apothecaries, which on the outside had apes and owls, and antiques, but contained within foreign and precious liquors and confessions; acknowledging, that to an external report he was

not



## Book I.

not without superficial levities and deformities, but was inwardly replenished with excellent virtues and powers. And so much touching the point of manners of learned men.

But in the mean time I have no purpose to give allowance to some conditions and courses base and unworthy, wherein divers professors of learning have wronged themselves, and gone too far; such as were those trencher philosophers, which in the later age of the Roman state were usually in the houses of great persons, being little better than solemn parasites; of which kind, Lucian maketh a merry description of the philosopher that the great lady took to ride with her in her coach, and would needs have him carry her little dog, which he doing officiously, and yet uncomely, the page scoffed, and said, "That he doubted, the philosopher of a Stoick would turn to be a Cynick." But above all the rest, the gross and palpable flattery, wherunto many (not unlearned) have abused and abused their wits and pens, turning (as Du Bartas saith) Hecuba into Helena, and Faustina into Lucretia, hath most diminished the price and estimation of learning. Neither is the modern dedications of books and writings, as to patrons, to be commended: for that books (such as are worthy the name of books) ought to have no patrons, but truth and reason. And the ancient custom was, to dedicate them only to private and equal friends, or to entitle the books with their names, or if to kings and great persons, it was to some such as the argument of the book was fit and proper for: but these and the like courses may deserve rather reprehension than defence.

Not that I can tax or condemn the morigeration or application of learned men to men in fortune. For the answer was good that Diogenes made to one that asked him in mockery: "How it came to pass that philosophers were the followers of rich men, and not rich men of philosophers?" He answered soberly, and yet sharply: "Because the one sort knew what they had need of, and the other did not." And of the like nature was the answer which Aristippus made, when having a petition to Dionysius, and no ear given to him, he fell down at his feet; wherupon Dionysius say'd, and gave him the hearing, and granted it; and afterward some person, tender on the behalf of philosophy, reproved Aristippus, that he would offer the profession of philosophy such an indignity, as for a private suit to fall at a tyrant's feet. But he answered: "It was not his fault, but it was the fault of Dionysius, that he had his ears in his feet." Neither was it accounted weakness, but discretion in him that would not dispute his best with Adrianus Cæsar; excusing himself, "That it was reason to yield to him that commanded thirty legions." These and the like applications, and stooping to points of necessity and convenience, cannot be disallowed: for though they may have some outward baseness, yet, in a judgment truly made, they are to be accounted submissions to the occasion, and not to the person.

Now I proceed to those errors and vanities, which have intervened amongst the studies themselves of the learned, which is that which is principal and proper to the present argument; wherein my purpose is not to make a justification of the errors, but, by a censure and separation of the errors, to make a justification of that which is good and sound, and to deliver that from the aspersions of the other. For we see, that it is the manner of men to scandalize and deprave that which retaineth the state and virtue, by taking advantage upon that which is corrupt and degenerate; as the heathens in the primitive church used to blaspheme and taint the Christians with the faults and corruptions of hereticks. But nevertheless I have no meaning at this time to make any exact annotation of the errors and impediments in matters of learning, which are more secret and remote from vulgar opinion, but only to speak unto such as do fall under, or near unto, a popular observation.

There be therefore chiefly three vanities in studies, whereby learning hath been most traduced. For those things we do esteem vain, which are either false or frivolous, those which either have no truth, or no use: and those persons we esteem vain, which are either credulous or curious; and curiosity is either in matter, or words: so that in reason, as well as in experience, there fall out to be these

three



three distempers (as I may term them) of learning: the first, fantastical learning; the second, contentious learning; and the last, delicate learning; vain imaginations, vain altercations, and vain affectations; and with the last I will begin.

Martin Luther, conducted (no doubt) by an higher providence, but in discourse of reason, finding what a province he had undertaken against the bishop of Rome, and the degenerate traditions of the church, and finding his own solitude, being no ways aided by the opinions of his own time, was enforced to awake all antiquity, and to call former times to his succour, to make a party against the present time. So that the ancient authors, both in divinity, and in humanity, which had long time slept in libraries, began generally to be read and revolved. This by consequence did draw on a necessity of a more exquisite travel in the languages original, wherein those authors did write, for the better understanding of those authors, and the better advantage of pressing and applying their words. And thereof grew again a delight in their manner of style and phrase, and an admiration of that kind of writing; which was much furthered and precipitated by the enmity and opposition, that the propounders of those primitive, but seeming new, opinions had against the schoolmen, who were generally of the contrary part, and whose writings were altogether in a differing style and form, taking liberty to coin, and frame new terms of art to express their own sense, and to avoid circuit of speech, without regard to the pureness, pleasantness, and (as I may call it) lawfulness, of the phrase or word. And again, because the great labour then was with the people (of whom the Pharisees were wont to say, *Exerabitis ista turba, quae non novit legem*) for the winning and persuading of them, there grew of necessity in chief price and request, eloquence and variety of discourse, as the fittest and forciblest access into the capacity of the vulgar sort: so that these four causes concurring, the admiration of ancient authors, the hate of the schoolmen, the exact study of languages, and the efficacy of preaching, did bring in an affected study of eloquence, and *copia* of speech, which then began to flourish. This grew speedily to an excess; for men began to hunt more after words than matter; and more after the choiceness of the phrase, and the round and clean composition of the sentence, and the sweet falling of the clauses, and the varying and illustration of their works with tropes and figures, than after the weight of matter, worth of subject, soundness of argument, life of invention, or depth of judgment. Then grew the flowing and watry vein of Olorius, the Portugal bishop, to be in price. Then did Sturmius spend such infinite and curious pains upon Cicero the orator, and Hermogenes the rhetorician, besides his own books of periods, and imitation, and the like. Then did Car of Cambridge, and Ascham, with their lectures and writings, almost deify Cicero and Demosthenes, and allure all young men, that were studious, unto that delicate and polished kind of learning. Then did Erasmus take occasion to make the scoffing echo; *Decem annos consumpsi in legendo Cicero*: and the echo answered in Greek, *Ὁὐκ ἔστιν Ἀψινε*. Then grew the learning of the schoolmen to be utterly despised as barbarous. In sum, the whole inclination and bent of those times was rather towards *copia*, than weight.

Here therefore is the first distemper of learning, when men study words, and not matter: whereof though I have represented an example of late times, yet it hath been, and will be *secundum majus et minus* in all time. And how is it possible but this should have an operation to discredit learning, even with vulgar capacities, when they see learned mens works like the first letter of a patent, or limned book; which though it hath large flourishes, yet it is but a letter? It seems to me that Pygmalion's frenzy is a good emblem or portraiture of this vanity: for words are but the images of matter, and except they have life of reason and invention, to fall in love with them is all one, as to fall in love with a picture.

But yet, notwithstanding, it is a thing not hastily to be condemned, to cloath and adorn the obscurity, even of philosophy itself, with sensible and plausible elocution; for hereof we have great examples in Xenophon, Cicero, Seneca, Plutarch, and of Plato also in some degree; and hereof likewise there is great use: for surely, to the severe inquisition of truth, and the deep progress into philosophy,



it is some hindrance ; because it is too early satisfactory to the mind of man, and quencheth the desire of farther search, before we come to a just period : but then, if a man be to have any use of such knowledge in civil occasions, of conference, counsel, persuasion, discourse, or the like ; then shall he find it prepared to his hands in those authors which write in that manner. But the excess of this is so justly contemptible, that as Hercules, when he saw the image of Adonis, Venus' minion, in a temple, said in disdain, *Nil sacri es* ; so there is none of Hercules' followers in learning, that is, the more severe and laborious sort of enquirers into truth, but will despise those delicacies and affectations, as indeed capable of no divineness. And thus much of the first disease or distemper of learning.

The second, which followeth, is in nature worse than the former : for as substance of matter is better than beauty of words, so, contrariwise, vain matter is worse than vain words ; wherein it seemeth the reprehension of St. Paul was not only proper for those times, but propheticall for the times following ; and not only relative to divinity, but extensive to all knowledge : *Devita prophanas vocum novitates, et oppositiones falsi nominis scientiae*. For he assigneth two marks and badges of suspected and falsified science : the one, the novelty and strangeness of terms ; the other, the strictness of positions, which of necessity doth induce oppositions, and so questions and altercations. Surely like as many substances in nature which are solid, do putrefy and corrupt into worms ; so it is the property of good and sound knowledge, to putrefy and dissolve into a number of subtle, idle, unwholesome, and (as I may term them) vermiculate questions, which have indeed a kind of quickness, and life of spirit, but no soundness of matter, or goodness of quality. This kind of degenerate learning did chiefly reign amongst the schoolmen, who, having sharp and strong wits, and abundance of leisure, and small variety of reading ; but their wits being shut up in the cells of a few authors (chiefly Aristotle their dictator) as their persons were shut up in the cells of monasteries and colleges, and knowing little history, either of nature or time, did out of no great quantity of matter, and infinite agitation of wit, spin out unto us those laborious webs of learning, which are extant in their books. For the wit and mind of man, if it work upon matter, which is the contemplation of the creatures of God, worketh according to the stuff, and is limited thereby : but if it work upon itself, as the spider worketh his web, then it is endless, and brings forth indeed cobwebs of learning, admirable for the fineness of thread and work, but of no substance or profit.

This same unprofitable subtilty or curiosty is of two sorts ; either in the subject itself that they handle, when it is a fruitless speculation, or controversy (whereof there are no small number both in divinity and philosophy) or in the manner or method of handling of a knowledge, which amongst them was this ; upon every particular position of assertion to frame objections, and to those objections, solutions ; which solutions were for the most part not confutations, but distinctions : whereas indeed the strength of all sciences is, as the strength of the old man's faggot, in the band. For the harmony of a science supporting each part the other, is and ought to be the true and brief confutation and suppression of all the smaller sort of objections. But, on the other side, if you take out every axiom, as the sticks of the faggot, one by one, you may quarrel with them, and bend them, and break them at your pleasure : so that as was said of Seneca, *Verborum minutiis rerum frangit pondera* ; so a man may truly say of the schoolmen, *Quaestionum minutiis scientiarum frangunt soliditatem*. For were it not better for a man in a fair room, to set up one great light, or branching candlestick of lights, than to go about with a small watch candle into every corner ? And such is their method, that rests not so much upon evidence of truth proved by arguments, authorities, similitudes, examples, as upon particular confutations and solutions of every scruple, cavillation, and objection ; breeding for the most part one question, as fast as it solveth another ; even as in the former resemblance, when you carry the light into one corner, you darken the rest : so that the fable and fiction of *Scylla* seemeth to be a lively image of this kind of philosophy or knowledge, which was transformed into a comely virgin for the upper parts ; but then, *Candida succinctam,*

Vol. I.

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lactantibus



*latrantibus inguina monstris*: so the generalities of the schoolmen are for a while good and proportionable; but then, when you descend into their distinctions and decisions, instead of a fruitful womb, for the use and benefit of man's life, they end in monstrous altercations, and barking questions. So as it is not possible but this quality of knowledge must fall under popular contempt, the people being apt to condemn truth upon occasion of controversies and altercations, and to think they are all out of their way which never meet: and when they see such digladiation about subtilties, and matters of no use or moment, they easily fall upon that judgment of Dionysius of Syracusa, *Verba illa sunt semini otiosorum*.

Notwithstanding, certain it is that if those schoolmen to their great thirst of truth, and unwearied travel of wit, had joined variety and universality of reading and contemplation, they had proved excellent lights, to the great advancement of all learning and knowledge; but as they are, they are great undertakers indeed, and fierce with dark keeping: but as in the enquiry of the divine truth, their pride inclined to leave the oracle of God's word, and to vanish in the mixture of their own inventions; so in the inquisition of nature, they ever left the oracle of God's works, and adored the deceiving and deformed images, which the unequal mirror of their own minds, or a few received authors or principles did represent unto them. And thus much for the second disease of learning.

For the third vice or disease of learning, which concerneth deceit or untruth, it is of all the rest the foulest; as that which doth destroy the essential form of knowledge; which is nothing but a representation of truth; for the truth of being, and the truth of knowing are one, differing no more than the direct beam, and the beam reflected. This vice therefore brancheth itself into two sorts; delight in deceiving, and aptness to be deceived; imposture and credulity; which although they appear to be of a diverse nature, the one seeming to proceed of cunning, and the other of simplicity; yet certainly they do for the most part concur: for as the verse noteth,

*Percontatorem fugito, nam garrulus idem est*:

an inquisitive man is a prater: so upon the like reason, a credulous man is a deceiver: as we see it in fame, that he that will easily believe rumours, will as easily augment rumours, and add somewhat to them of his own; which Tacitus wisely noteth, when he saith, *Fingunt simul creduntque*: so great an affinity hath fiction and belief.

This facility of credit, and accepting or admitting things weakly authorized or warranted, is of two kinds, according to the subject: for it is either a belief of history (as the lawyers speak, matter of fact;) or else of matter of art and opinion: as to the former, we see the experience and inconvenience of this error in ecclesiastical history, which hath too easily received and registered reports and narrations of miracles wrought by martyrs, hermits, or monks of the desert, and other holy men, and their relics, shrines, chapels, and images: which though they had a passage for time, by the ignorance of the people, the superstitious simplicity of some, and the politick toleration of others, holding them but as divine poeases: yet after a period of time, when the mist began to clear up, they grew to be esteemed but as old wives fables, impostures of the clergy, illusions of spirits, and badges of antichrist, to the great scandal and detriment of religion.

So in natural history, we see there hath not been that choice and judgment used as ought to have been, as may appear in the writings of Plinius, Cardanus, Albertus, and divers of the Arabians, being fraught with much fabulous matter, a great part not only untried, but notoriously untrue, to the great derogation of the credit of natural philosophy with the grave and sober kind of wits: wherein the wisdom and integrity of Aristotle is worthy to be observed, that, having made so diligent and exquisite a history of living creatures, hath mingled it sparingly with any vain or feigned matter; and yet, on the other side, hath cast all prodigious narrations, which he thought worthy the recording, into one book: excellently discerning that matter of manifest truth, such, whereupon observation and rule was to be built, was not to be mingled or weakened with matter of doubtful credit; and yet

again,



again, that rarities and reports, that seem incredible, are not to be suppressed or denied to the memory of men.

And as for the facility of credit which is yielded to arts and opinions, it is likewise of two kinds, either when too much belief is attributed to the arts themselves, or to certain authors in any art. The sciences themselves which have had better intelligence and confederacy with the imagination of man, than with his reason, are three in number: astrology, natural magick, and alchemy; of which sciences, nevertheless, the ends or pretences are noble. For astrology pretendeth to discover that correspondence, or concatenation, which is between the superior globe and the inferior. Natural magick pretendeth to call and reduce natural philosophy, from variety of speculations to the magnitude of works; and alchemy pretendeth to make separation of all the unlike parts of bodies, which in mixtures of nature are incorporate. But the derivations and prosecutions to these ends, both in the theories, and in the practices, are full of error and vanity, which the great professors themselves have sought to veil over and conceal by enigmatical writings, and referring themselves to auricular traditions and such other devices, to save the credit of impostors: and yet surely to alchemy this right is due, that it may be compared to the husbandman whereof *AEsop* makes the fable; that, when he died, told his sons, that he had left unto them gold buried under ground in his vineyard; and they digged over all the ground, and gold they found none; but by reason of their stirring and digging the mould about the roots of their vines, they had a great vintage the year following: so assuredly the search and stir to make gold hath brought to light a great number of good and fruitful inventions and experiments, as well for the disclosing of nature, as for the use of man's life.

And as for the overmuch credit that hath been given unto authors in sciences, in making them dictators, that their words should stand; and not consuls to give advice; the damage is infinite that sciences have received thereby, as the principal cause that hath kept them low, at a stay, without growth or advancement. For hence it hath come, that in arts mechanical, the first deviser comes shortest, and time addeth and perfecteth: but in sciences, the first author goeth farthest, and time loseth and corrupteth. So we see, artillery, sailing, printing, and the like, were grossly managed at the first, and by time accommodated and refined: but contrariwise the philosophies and sciences of Aristotle, Plato, Democritus, Hippocrates, Euclides, Archimedes, of most vigour at the first, and by time degenerate and imbedded; whereof the reason is no other, but that in the former many wits and industries have contributed in one; and in the latter, many wits and industries have been spent about the wit of some one, whom many times they have rather depraved, than illustrated. For as water will not ascend higher than the level of the first spring-head, from whence it descendeth; so knowledge derived from Aristotle, and exempted from liberty of examination, will not rise again higher than the knowledge of Aristotle. And therefore although the position be good, *Oportet discentem credere*; yet it must be coupled with this, *Oportet edocsum judicare*: for disciples do owe unto masters only a temporary belief, and a suspension of their own judgment till they be fully instructed, and not an absolute resignation, or perpetual captivity: and therefore, to conclude this point, I will say no more; but so let great authors have their due, as Time, which is the author of authors, be not deprived of his due, which is, farther and farther to discover truth. Thus I have gone over these three diseases of learning; besides the which, there are some other rather peccant humours than formed diseases, which nevertheless are not so secret and intrinsic, but that they fall under a popular observation and traducement, and therefore are not to be passed over.

The first of these is the extreme affecting of two extremities: the one antiquity, the other novelty; wherein it seemeth the children of Time do take after the nature and malice of the father. For as he devoureth his children, so one of them seeketh to devour and suppress the other, while antiquity envieth there should be new additions, and novelty cannot be content to add, but it must deface; surely, the advice of the prophet is the true direction in this matter, *State super vias antiquas, et videte quoniam sit via recta, et bona, et ambulate in ea.* Antiquity



deserveth that reverence, that men should make a stand thereupon, and discover what is the best way; but when the discovery is well taken, then to make progression. And to speak truly, *Antiquitas sacculi, juvenus mundi*. These times are the ancient times when the world is ancient, and not those which we account ancient *ordine retrogrado*, by a computation backward from ourselves.

Another error, induced by the former, is a distrust that any thing should be now to be found out, which the world should have missed and passed over so long time; as if the same objection were to be made to time, that Lucian maketh to Jupiter, and other the heathen gods, of which he wondereth, that they begot so many children in old time, and begot none in his time; and asketh whether they were become septuagenary, or whether the law Papiæ, made against old mens marriages, had restrained them. So it seemeth men doubt, lest time is become past children and generation; wherein, contrariwise, we see commonly the levity and unconstancy of mens judgments, which, till a matter be done, wonder that it can be done; and, as soon as it is done, wonder again that it was no sooner done; as we see in the expedition of Alexander into Asia, which at first was judged as a vast and impossible enterprize: and yet afterwards it pleaseth Livy to make no more of it than this; *Nil aliud, quam bene ausus est vana contemnere*: and the same happened to Columbus in the western navigation. But in intellectual matters, it is much more common; as may be seen in most of the propositions of Euclid, which till they be demonstrated, they seem strange to our assent; but being demonstrated, our mind accepteth of them by a kind of relation (as the lawyers speak) as if we had known them before.

Another error that hath also some affinity with the former, is a conceit, that of former opinions or sects, after variety and examination, the best hath still prevailed, and suppressed the rest: so as, if a man should begin the labour of a new search, he were but like to light upon somewhat formerly rejected; and by rejection, brought into oblivion; as if the multitude, or the wisest, for the multitude's sake, were not ready to give passage, rather to that which is popular and superficial, than to that which is substantial and profound: for the truth is, that time seemeth to be of the nature of a river or stream, which carrieth down to us that which is light and blown up, and sinketh and drowneth that which is weighty and solid.

Another error, of a diverse nature from all the former, is the over-early and peremptory reduction of knowledge into arts and methods; from which time commonly sciences receive small or no augmentation. But as young men, when they knit and shape perfectly, do seldom grow to a farther stature: so knowledge, while it is in aphorisms and observations, it is in growth; but when it once is comprehended in exact methods, it may perchance be farther polished and illustrated, and accommodated for use and practice; but it increaseth no more in bulk and substance.

Another error which doth succeed that which we last mentioned, is, that after the distribution of particular arts and sciences, men have abandoned universality, or *philosophia prima*; which cannot but cease, and stop all progression. For no perfect discovery can be made upon a flat or a level: neither is it possible to discover the more remote, and deeper parts of any science, if you stand but upon the level of the same science, and ascend not to a higher science.

Another error hath proceeded from too great a reverence, and a kind of adoration of the mind and understanding of man: by means whereof, men have withdrawn themselves too much from the contemplation of nature, and the observations of experience, and have tumbled up and down in their own reason and conceits. Upon these intellectualists, which are, notwithstanding, commonly taken for the most sublime and divine philosophers, Heraclitus gave a just censure, saying: "Men sought truth in their own little worlds, and not in the great and "common world;" for they disdain to spell, and so by degrees to read in the volume of God's works; and contrariwise, by continual meditation and agitation of wit, do urge and as it were invoke their own spirits to divine, and give oracles unto them, whereby they are deservedly deluded.

Another



Another error that hath some connexion with this latter, is, that men have used to infect their meditations, opinions, and doctrines, with some conceits which they have most admired, or some sciences which they have most applied; and given all things else a tincture according to them, utterly untrue and improper. So hath Plato intermingled his philosophy with theology, and Aristotle with logic; and the second school of Plato, Proclus, and the rest, with the mathematics. For these were the arts which had a kind of primogeniture with them severally. So have the alchemists made a philosophy out of a few experiments of the furnace; and Gilbertus, our countryman, hath made a philosophy out of the observations of a loadstone. So Cicero, when, reciting the several opinions of the nature of the soul, he found a musician, that held the soul was but a harmony, saith pleasantly: *Hic ab arte sua non recessit, etc.* But of these conceits Aristotle speaketh seriously and wisely, when he saith; *Qui respiciunt ad pauca, de facili pronuntiant.*

Another error is an impatience of doubt, and haste to assertion without due and mature suspension of judgment. For the two ways of contemplation are not unlike the two ways of action, commonly spoken of by the ancients: the one plain and smooth in the beginning, and in the end impassable; the other rough and troublesome in the entrance, but after a while fair and even: so it is in contemplation; if a man will begin with certainties, he shall end in doubts; but if he will be content to begin with doubts, he shall end in certainties.

Another error is in the manner of the tradition and delivery of knowledge, which is for the most part magistral and peremptory; and not ingenuous and faithful, in a sort, as may be soonest believed; and not easiest examined. It is true, that in compendious treatises for practice, that form is not to be disallowed. But in the true handling of knowledge, men ought not to fall either, on the one side, into the vein of Velleius the Epicurean: *Nil tam metuens, quam ne dubitare aliqua de re videretur*: nor, on the other side, into Socrates his ironical doubting of all things; but to propound things sincerely, with more or less asseveration, as they stand in a man's own judgment proved more or less.

Other errors there are in the scope that men propound to themselves, whereunto they bend their endeavours: for whereas the more constant and devote kind of professors of any science ought to propound to themselves to make some additions to their science, they convert their labours to aspire to certain second prizes; as to be a profound interpreter, or commentator; to be a sharp champion or defender; to be a methodical compounder or abridger; and so the patrimony of knowledge cometh to be sometimes improved, but seldom augmented.

But the greatest error of all the rest, is the mistaking or misplacing of the last or farthest end of knowledge: for men have entered into a desire of learning and knowledge, sometimes upon a natural curiosity, and inquisitive appetite; sometimes to entertain their minds with variety and delight; sometimes for ornament and reputation; and sometimes to enable them to victory of wit and contradiction; and most times for lucre and profession; and seldom sincerely to give a true account of their gift of reason, to the benefit and use of men: as if there were sought in knowledge a couch, whereupon to rest a searching and restless spirit; or a terras, for a wandering and variable mind to walk up and down with a fair prospect; or a tower of state, for a proud mind to raise itself upon; or a fort or commanding ground, for strife and contention; or a shop, for profit, or sale; and not a rich storehouse, for the glory of the Creator, and the relief of man's estate. But this is that which will indeed dignify and exalt knowledge, if contemplation and action may be more nearly and straitly conjoined and united together than they have been; a conjunction like unto that of the two highest planets, Saturn, the planet of rest and contemplation, and Jupiter, the planet of civil society and action: howbeit, I do not mean, when I speak of use and action, that end before-mentioned of the applying of knowledge to lucre and profession; for I am not ignorant how much that diverteth and interrupteth the prosecution and advancement of knowledge, like unto the golden ball thrown before Atalanta, which while she goeth aside and stoopeth to take up, the race is hinder'd;



*Declinat cursus, aurumque volubile tollit.*

Neither is my meaning, as was spoken of Socrates, to call philosophy down from heaven to converse upon the earth, that is, to leave natural philosophy aside, and to apply knowledge only to manners and policy. But as both heaven and earth do conspire and contribute to the use and benefit of man; so the end ought to be, from both philosophies to separate and reject vain speculations, and whatsoever is empty and void, and to preserve and augment whatsoever is solid and fruitful: that knowledge may not be, as a courtesan, for pleasure and vanity only, or, as a bondswoman, to acquire and gain to her master's use; but, as a spouse, for generation, fruit, and comfort.

Thus have I described and opened, as by a kind of dissection, those peccant humours (the principal of them) which have not only given impediment to the proficience of learning, but have given also occasion to the traducement thereof: wherein if I have been too plain, it must be remember'd: *Fidelis vulnera amantis, sed dolosa oscula malignantis.*

This, I think, I have gained, that I ought to be the better believed in that which I shall say pertaining to commendation; because I have proceeded so freely in that which concerneth censure. And yet I have no purpose to enter into a laudative of learning, or to make a hymn to the muses (though I am of opinion that it is long since their rites were duly celebrated:) but my intent is, without varnish or amplification justly to weigh the dignity of knowledge in the balance with other things, and to take the true value thereof by testimonies and arguments divine and human.

FIRST therefore, let us seek the dignity of knowledge in the archetype or first platform, which is in the attributes and acts of God, as far as they are revealed to man, and may be observed with sobriety; wherein we may not seek it by the name of learning; for all learning is knowledge acquired, and all knowledge in God is original: and therefore we must look for it by another name, that of wisdom or sapience, as the Scriptures call it.

It is so then, that in the work of the creation we see a double emanation of virtue from God; the one referring more properly to power, the other to wisdom; the one expressed in making the subsistence of the matter, and the other in disposing the beauty of the form. This being supposed, it is to be observed, that, for any thing which appeareth in the history of the creation, the confused mass and matter of heaven and earth was made in a moment; and the order and disposition of that chaos, or mass, was the work of six days; such a note of difference it pleased God to put upon the works of power, and the works of wisdom: wherewith concurrcth, that in the former it is not set down that God said, *Let there be heaven and earth*, as it is set down of the works following; but actually, that God made heaven and earth: the one carrying the style of a manufacture, and the other of a law, decree, or council.

To proceed to that, which is next in order, from God to spirits. We find, as far as credit is to be given to the celestial hierarchy of that supposed Dionysius the senator of Athens, the first place or degree is given to the angels of love, which are termed Seraphim; the second, to the angels of light, which are termed Cherubim; and the third, and so following places, to thrones, principalities, and the rest, which are all angels of power and ministry; so as the angels of knowledge and illumination are placed before the angels of office and domination.

To descend from spirits and intellectual forms, to sensible and material forms; we read the first form that was created, was light, which hath a relation and correspondance in nature and corporal things, to knowledge in spirits and incorporeal things.

So in the distribution of days, we see, the day wherein God did rest, and contemplate his own works, was blessed above all the days wherein he did effect and accomplish them.

After the creation was finished, it is set down unto us, that man was placed in the garden to work therein; which work, so appointed to him, could be no other than work of contemplation; that is, when the end of work is but for exercise and



and experiment, not for necessity; for there being then no reluctance of the creature, nor sweat of the brow, man's employment must of consequence have been matter of delight in the experiment, and not matter of labour for the use. Again, the first acts which man performed in paradise, consisted of the two summary parts of knowledge; the view of creatures, and the imposition of names. As for the knowledge which induced the fall, it was, as was touched before, not the natural knowledge of creatures, but the moral knowledge of good and evil; wherein the supposition was, that God's commandments or prohibitions were not the originals of good and evil, but that they had other beginnings, which men aspired to know, to the end to make a total defection from God, and to depend wholly upon himself.

To pass on: in the first event or occurrence after the fall of man, we see (as the Scriptures have infinite mysteries, not violating at all the truth of the story or letter) an image of the two estates, the contemplative state, and the active state, figured in the two persons of Abel and Cain, and in the two simplest and most primitive trades of life, that of the shepherd, who, by reason of his leisure, rest in a place, and living in view of heaven, is a lively image of a contemplative life; and that of the husbandman: where we see again, the favour and election of God went to the shepherd, and not to the tiller of the ground.

So in the age before the flood, the holy records within those few memorials, which are there enter'd and register'd, have vouchsafed to mention, and honour the name of the inventors and authors of musick, and works in metal. In the age after the flood, the first great judgment of God upon the ambition of man, was the confusion of tongues: whereby the open trade and intercourse of learning and knowledge was chiefly imbarred.

To descend to Moses the lawgiver, and God's first pen: he is adorned by the Scriptures with this addition and commendation, that he was *seen in all the learning of the Egyptians*; which nation, we know, was one of the most ancient schools of the world: for so Plato brings in the Egyptian priest saying unto Solon; "you Grecians are ever children, you have no knowledge of antiquity, nor antiquity of knowledge." Take a view of the ceremonial law of Moses; you shall find, besides the prefiguration of Christ, the badge or difference of the people of God, the exercise and impression of obedience, and other divine uses and fruits thereof, that some of the most learned Rabbins have travelled profitably, and profoundly to observe, some of them a natural, some of them a moral sense, or reduction of many of the ceremonies and ordinances. As in the law of the leprosy, where it is said; *If the whiteness have overspread the flesh, the patient may pass abroad for clean; but if there be any whole flesh remaining, he is to be shut up for unclean*: one of them noteth a principle of nature, that putrefaction is more contagious before maturity, than after: and another noteth a position of moral philosophy, that men, abandoned to vice, do not so much corrupt manners, as those that are half-good and half-evil. So in this, and very many other places in that law, there is to be found, besides the theological sense, much asperison of philosophy.

So likewise in that excellent book of Job, if it be revolved with diligence, it will be found pregnant, and swelling with natural philosophy; as for example, cosmography, and the roundness of the world: *Qui extendit aquilonem super vacuum, et appendit terram super nihilum*; wherein the pensiveness of the earth, the pole of the north, and the finiteness or convexity of heaven are manifestly touched. So again, matter of astronomy; *Spiritus ejus ornavit celos, et obstrictante manu ejus enatus est Coluber tortuosus*. And in another place; *Nunquid conjungere valebis micantes stellas Pleiadas, aut gyrum Arcturi poteris dissipare?* Where the fixing of the stars, ever standing at equal distance, is with great elegancy noted. And in another place, *Qui facit Arcturum, et Oriona, et Hyadas, et interiora Austeri*; where again he takes knowledge of the depression of the southern pole, calling it the secrets of the south, because the southern stars were in that climate unseen. Matter of generation, *Ammon sicut lac misisti me, et sicut caseum coagulasti me, etc.* Matter of minerals, *Habet argentum venarum suarum principia: et auro locus est in*



*quo confatur, ferrum de terra tollitur, et lapis solutus calore in aes vertitur: and so forwards in that chapter.*

So likewise in the person of Solomon the king, we see the gift or endowment of wisdom and learning, both in Solomon's petition, and in God's assent thereunto, preferred before all other terrene and temporal felicity. By virtue of which grant or donative of God, Solomon became enabled, not only to write those excellent parables, or aphorisms, concerning divine and moral philosophy; but also to compile a natural history of all verdure, from the cedar upon the mountain to the moos upon the wall (which is but a rudiment between putrefaction and an herb) and also of all things that breathe or move. Nay, the same Solomon the king, although he excelled in the glory of treasure and magnificent buildings, of shipping and navigation, of service and attendance, of fame and renown, and the like; yet he maketh no claim to any of those glories, but only to the glory of inquisition of truth; for so he saith expressly, *The glory of God is to conceal a thing, but the glory of the king is to find it out*; as if, according to the innocent play of children, the Divine Majesty took delight to hide his works, to the end to have them found out; and as if kings could not obtain a greater honour than to be God's playfellows in that game, considering the great commandment of wits and means, whereby nothing needeth to be hidden from them.

Neither did the dispensation of God vary in the times after our Saviour came into the world; for our Saviour himself did first shew his power to subdue ignorance, by his conference with the priests and doctors of the law, before he shewed his power to subdue nature, by his miracles. And the coming of the Holy Spirit was chiefly figured and expressed in the similitude and gift of tongues, which are but *vehicula scientiæ*.

So in the election of those instruments, which it pleased God to use for the plantation of the faith, notwithstanding that at the first he did employ persons altogether unlearned, otherwise than by inspiration, more evidently to declare his immediate working, and to abase all human wisdom or knowledge; yet, nevertheless, that counsel of his was no sooner performed, but in the next vicissitude and succession, he did send his divine truth into the world, waited on with other learnings, as with servants or handmaids: for so we see St. Paul, who was only learned amongst the apostles, had his pen most used in the Scriptures of the New Testament.

So again, we find that many of the ancient bishops and fathers of the Church were excellently read, and studied in all the learning of the heathen; insomuch, that the edict of the emperor Julianus (whereby it was interdicted unto Christians to be admitted into schools, lectures, or exercises of learning) was esteemed and accounted a more pernicious engine and machination against the Christian faith, than were all the sanguinary persecutions of his predecessors; neither could the emulation and jealousy of Gregory the first of that name, bishop of Rome, ever obtain the opinion of piety or devotion; but contrariwise received the censure of humour, malignity, and pusillanimity, even amongst holy men; in that he designed to obliterate and extinguish the memory of heathen antiquity and authors. But contrariwise it was the Christian church, which, amidst the inundations of the Scythians on the one side from the north-west, and the Saracens from the east, did preserve, in the sacred lap and bosom thereof, the precious reliicks even of heathen learning, which otherwise had been extinguished, as if no such thing had ever been.

And we see before our eyes, that in the age of ourselves and our fathers, when it pleased God to call the church of Rome to account for their degenerate manners and ceremonies, and sundry doctrines obnoxious, and framed to uphold the same abuses; at one and the same time it was ordained by the divine providence, that there should attend withal a renovation, and new spring of all other knowledges: and, on the other side, we see the Jesuits, who partly in themselves, and partly by the emulation and provocation of their example, have much quicken'd and strengthened the state of learning: we see, I say, what notable service and reparation they have done to the Roman see.

Wherefore,



Wherefore, to conclude this part, let it be observed, that there be two principal duties and services, besides ornament and illustration, which philosophy and human learning do perform to faith and religion. The one, because they are an effectual inducement to the exaltation of the glory of God. For as the Psalms, and other Scriptures do often invite us to consider, and magnify the great and wonderful works of God; so if we should rest only in the contemplation of the exterior of them, as they first offer themselves to our senses, we should do a like injury unto the majesty of God, as if we should judge or construe of the store of some excellent jeweller, by that only which is set out toward the street in his shop. The other, because they minister a singular help and preservative against unbelief and error: for our Saviour saith, *You err, not knowing the Scriptures, nor the power of God*; laying before us two books or volumes to study, if we will be secured from error; first, the Scriptures, revealing the will of God; and then the creatures, expressing his power: whereof the latter is a key unto the former; not only opening our understanding to conceive the true sense of the Scriptures, by the general notions of reason and rules of speech; but chiefly opening our belief, in drawing us into a due meditation of the omnipotency of God, which is chiefly signed and engraven upon his works. Thus much therefore for divine testimony and evidence, concerning the true dignity and value of learning.

As for human proofs, it is so large a field, as, in a discourse of this nature and brevity, it is fit rather to use choice of those things, which we shall produce, than to embrace the variety of them. First therefore, in the degrees of human honour amongst the heathen, it was the highest, to obtain to a veneration and adoration as a God. This unto the Christians is as the forbidden fruit. But we speak now separately of human testimony; according to which, that which the Grecians call *apotehegis*, and the Latins, *relatio inter deos*, was the supreme honour which man could attribute unto man, especially when it was given, not by a formal decree or act of state, as it was used among the Roman emperors; but by an inward assent and belief. Which honour being so high, had also a degree or middle term: for there were reckoned above human honours, honours heroical and divine; in the attribution and distribution of which honours, we see, antiquity made this difference: that whereas founders and unifiers of states and cities, lawgivers, extirpers of tyrants, fathers of the people, and other eminent persons in civil merit, were honoured but with the titles of worthies or demi-gods; such as were Hercules, Theseus, Minos, Romulus, and the like: on the other side, such as were inventors and authors of new arts, endowments, and commodities towards man's life, were ever consecrated amongst the gods themselves: as was Ceres, Bacchus, Mercurius, Apollo, and others; and justly: for the merit of the former is confined within the circle of an age or a nation; and is like fruitful flowers, which though they be profitable and good, yet serve but for that season, and for a latitude of ground where they fall: but the other is indeed like the benefits of heaven, which are permanent and universal. The former, again, is mixed with strife and perturbation; but the latter hath the true character of divine presence, coming in *aura leni*, without noise or agitation.

Neither is certainly that other merit of learning, in repressing the inconveniences which grow from man to man, much inferior to the former, of relieving the necessities which arise from nature; which merit was lively set forth by the ancients in that feigned relation of Orpheus's theatre, where all beasts and birds assembled, and, forgetting their several appetites, some of prey, some of game, some of quarrel, stood all sociably together listening to the airs and accords of the harp; the sound whereof no sooner ceased, or was drowned by some louder noise, but every beast returned to his own nature: wherein is aptly described the nature and condition of men, who are full of savage and unreclaimed desires of profit, of lust, of revenge; which as long as they give ear to precepts, to laws, to religion, sweetly touched with eloquence and persuasion of books, of sermons, of harangues, so long is society and peace maintained: but if these instruments be silent, or that sedition and tumult make them not audible, all things dissolve into anarchy and confusion.



But this appeareth more manifestly, when kings themselves, or persons of authority under them, or other governors in commonwealths and popular estates, are endued with learning. For although he might be thought partial to his own profession, that said, "Then should people and estates be happy, when either kings were philosophers, or philosophers kings;" yet so much is verified by experience, that under learned princes and governors there have been ever the best times: for howsoever kings may have their imperfections in their passions and customs; yet if they be illuminate by learning, they have those notions of religion, policy, and morality, which do preserve them. And restrain them from all ruinous and peremptory errors and excesses, whispering evermore in their ears, when counsellors and servants stand mute and silent. And senators, or counsellors likewise, which be learned, do proceed upon more safe and substantial principles, than counsellors which are only men of experience; the one sort keeping dangers afar off, whereas the other discover them not till they come near hand, and then trust to the agility of their wit to ward or avoid them.

Which felicity of times under learned princes (to keep still the law of brevity, by using the most eminent and selected examples) doth best appear in the age which passed from the death of Domitianus the emperor, until the reign of Commodus; comprehending a succession of six princes, all learned; or singular favourers and advancers of learning; which age, for temporal respects, was the most happy and flourishing, that ever the Roman empire (which then was a model of the world) enjoyed; a matter revealed and prefigured unto Domitian in a dream the night before he was slain; for he thought there was grown behind upon his shoulders, a neck and a head of gold: which came accordingly to pass in those golden times which succeeded; of which princes we will make some commemoration: wherein although the matter will be vulgar, and may be thought fitter for a declamation, than agreeable to a treatise enselded as this is; yet because it is pertinent to the point in hand, *neque semper arcum tendit Apollo*, and to name them only were too naked and cursory, I will not omit it altogether.

The first was Nerva, the excellent temper of whose government is by a glance in Cornelius Tacitus touched to the life: *Postquam divus Nerva res olim insociabiles misceisset, imperium et libertatem*. And in token of his learning, the last act of his short reign, left to memory, was a missive to his adopted son Trajan, proceeding upon some inward discontent at the ingratitude of the times, comprehended in a verse of Homer's;

*Te his Phoebe, tuis lacrymas ulciscere nostras.*

Trajan, who succeeded, was for his person not learned: but if we will hearken to the speech of our Saviour, that saith, *He that receiveth a prophet in the name of a prophet, shall have a prophet's reward*, he deserveth to be placed amongst the most learned princes; for there was not a greater admirer of learning, or benefactor of learning; a founder of famous libraries, a perpetual advancer of learned men to office, and a familiar converser with learned professors and preceptors, who were noted to have then most credit in court. On the other side, how much Trajan's virtue and government was admired and renowned, surely no testimony of grave and faithful history doth more lively set forth, than that legend tale of Gregorius Magnus, bishop of Rome, who was noted for the extreme envy he bore towards all heathen excellency; and yet he is reported, out of the love and estimation of Trajan's moral virtues, to have made unto God passionate and fervent prayers for the delivery of his soul out of hell; and to have obtained it, with a caveat, that he should make no more such petitions. In this prince's time also, the persecutions against the Christians received intermission, upon the certificate of Plinius Secundus, a man of excellent learning, and by Trajan advanced.

Adrian, his successor, was the most curious man that lived, and the most universal enquirer; inasmuch as it was noted for an error in his mind, that he desired to comprehend all things, and not to reserve himself for the worthiest things; falling into the like humour that was long before noted in Philip of Macedon, who when he would needs over-rule and put down an excellent musician, in an argument touching musick, was well answered by him again, "God forbid,



“ bid, Sir (saith he) that your fortune should be so bad, as to know these things better than I.” It pleased God likewise to use the curiosity of this emperor, as an inducement to the peace of his church in those days. For having Christ in veneration, not as a God or Saviour, but as a wonder or novelty; and having his picture in his gallery, matched with Apollonius (with whom, in his vain imagination he thought, he had some conformity) yet it served the turn to allay the bitter hatred of those times against the christian name, so as the church had peace during his time. And for his government civil, although he did not attain to that of Trajan’s, in the glory of arms, or perfection of justice; yet in deserving of the weal of the subject, he did exceed him. For Trajan erected many famous monuments and buildings, inasmuch as Constantine the Great in emulation, was wont to call him *Parietaria*, wall-flower, because his name was upon so many walls: but his buildings and works were more of glory and triumph, than use and necessity. But Adrian spent his whole reign, which was peaceable, in a perambulation, or survey of the Roman empire, giving order, and making assignation where he went, for re-edifying of cities, towns, and forts decayed, and for cutting of rivers and streams, and for making bridges and passages, and for pollicying of cities and commonalties with new ordinances and constitutions, and granting new franchises and incorporations; so that his whole time was a very restauration of all the lapses and decays of former times.

Antoninus Pius, who succeeded him, was a prince excellently learned; and had the patient and subtle wit of a schoolman; inasmuch as in common speech (which leaves no virtue untaxed) he was called *gymni sessor*, a carver, or a divider of cunning-seed, which is one of the least seeds; such a patience he had and settled spirit, to enter into the least and most exact differences of causes; a fruit, no doubt, of the exceeding tranquillity, and serenity of his mind; which being no ways charged or incumbered, either with fears, remorse, or scruples, but having been noted for a man of the purest goodness, without all fiction or affectation, that hath reigned or lived, made his mind continually present and entire. He likewise approached a degree nearer unto christianity, and became, as Agrippa said unto St. Paul, *half a Christian*; holding their religion and law in good opinion, and not only easing persecution, but giving way to the advancement of Christians.

There succeeded him the first *divi fratres*, the two adoptive brethren, Lucius Commodus Verus, son to Aelius Verus, who delighted much in the softer kind of learning, and was wont to call the poet Martial his Virgil; and Marcus Aurelius Antoninus, whereof the latter, who obscured his colleague, and survived him long, was named the philosopher; who as he excelled all the rest in learning, so he excelled them likewise in perfection of all royal virtues; inasmuch as Julianus the emperor, in his book, entitled, *Caesares*, being as a paquill or satire to deride all his predecessors, feigned, that they were all invited to a banquet of the gods, and Silenus the jester sat at the nether end of the table, and bestowed a scoff on every one as they came in; but when Marcus Philosophus came in, Silenus was gravelled, and out of countenance, not knowing where to carp at him, save at the last he gave a glance at his patience towards his wife. And the virtue of this prince, continued with that of his predecessor, made the name of Antoninus so sacred in the world, that though it were extremely dishonoured in Commodus, Caracalla, and Heliogabalus, who all bore the name; yet when Alexander Severus refused the name, because he was a stranger to the family, the senate with one acclamation said, *Quemodo Augustus, sic et Antoninus*. In such renown and veneration was the name of these two princes in those days, that they would have had it as a perpetual addition in all the emperors style. In this emperor’s time also, the church for the most part was in peace; so as in this sequence of six princes, we do see the blessed effects of learning in sovereignty, painted forth in the greatest table of the world.

But for a tablet, or picture of smaller volume, not presuming to speak of your majesty that liveth, in my judgment the most excellent is that of queen

Eliza-



Elizabeth, your immediate predecessor in this part of Britain; a prince, that if Plutarch were now alive to write lives by parallels, would trouble him, I think, to find for her a parallel amongst women. This lady was endued with learning in her sex singular, and great even amongst masculine princes; whether we speak of learning, of language, or of science, modern or ancient, divinity or humanity: and unto the very last year of her life, she accustomed to appoint set hours for reading; scarcely any young student in an university, more daily, or more duly. As for her government, I assure myself, I shall not exceed, if I do affirm, that this part of the island never had forty-five years of better times; and yet not through the calmness of the season, but through the wisdom of her regiment.

For if there be considered, of the one side, the truth of religion established; the constant peace and security; the good administration of justice; the temperate use of the prerogative, not slackened, nor much strained; the flourishing state of learning, sortable to so excellent a patroness; the convenient estate of wealth and means, both of crown and subject; the habit of obedience, and the moderation of discontents: And there be considered, on the other side, the differences of religion, the troubles of neighbour countries, the ambition of Spain, and opposition of Rome; and then, that she was solitary, and of herself: these things, I say, considered, as I could not have chosen an instance so recent and so proper, so, I suppose, I could not have chosen one more remarkable, or eminent, to the purpose now in hand, which is concerning the conjunction of learning in the prince, with felicity in the people.

Neither hath learning an influence and operation only upon civil merit and moral virtue, and the arts or temperature of peace and peaceable government; but likewise it hath no less power and efficacy in enablement towards martial and military virtue and prowess; as may be notably represented in the examples of Alexander the Great, and Caesar the dictator, mentioned before, but now in fit place to be resumed; of whose virtues and acts in war there needs no note or recital, having been the wonders of time in that kind: but of their affections towards learning, and perfections in learning, it is pertinent to say somewhat.

Alexander was bred and taught under Aristotle the great philosopher, who dedicated divers of his books of philosophy unto him: he was attended with Callisthenes, and divers other learned persons, that followed him in camp, throughout his journeys and conquests. What price and estimation he had learning in, doth notably appear in these three particulars: first, in the envy he used to express, that he bore towards Achilles, in this, that he had so good a trumpet of his praises as Homer's verses: secondly, in the judgment or solution he gave touching that precious cabinet of Darius, which was found amongst his jewels, whereof question was made what thing was worthy to be put into it, and he gave his opinion for Homer's works: thirdly, in his letter to Aristotle, after he had set forth his books of nature, wherein he expostulateth with him for publishing the secrets or mysteries of philosophy, and gave him to understand that himself esteemed it more to excel other men in learning and knowledge, than in power and empire. And what use he had of learning doth appear, or rather shine in all his speeches and answers, being full of science and use of science, and that in all variety.

And here again it may seem a thing scholastical, and somewhat idle, to recite things that every man knoweth; but yet, since the argument I handle, leadeth me thereunto, I am glad that men shall perceive I am as willing to flatter (if they will so call it) an Alexander, or a Caesar, or an Antoninus, that are dead many hundred years since, as any that now liveth: for it is the displaying of the glory of learning in sovereignty that I propound to myself, and not an humour of declaiming in any man's praises. Observe then the speech he used of Diogenes, and see if it tend not to the true state of one of the greatest questions of moral philosophy; whether the enjoying of outward things, or the contemning of them, be the greatest happiness: for when he saw Diogenes so perfectly contented with so little, he said to those that mocked at his



gentlemen; "Were I met Alexander, I would wish to be Diogenes." But Seneca mistrusts it, and saith; *Plus erat, quod hic mollet accipere, quam quod ille possit dare*. "There were more things which Diogenes would have refused, than those were, which Alexander could have given or enjoyed."

Observe again that speech which was usual with him, "That he felt his mortality chiefly in two things, sleep and lust;" and see if it were not a speech extracted out of the depth of natural philosophy, and liker to have come out of the mouth of Aristotle, or Democritus, than from Alexander.

See again that speech of humanity and poetry; when upon the bleeding of his wounds, he called unto him one of his flatterers, that was wont to ascribe to him divine honour, and said, "Look, this is very blood; this is not such liquor as Homer speaketh of, which ran from Venus's hand, when it was pierced by Diomedes."

See likewise his readiness in reprehension of logic, in the speech he used to Cassander, upon a complaint that was made against his father Antipater: for when Alexander happened to say, "Do you think these men would have come from so far to complain, except they had just cause of grief?" And Cassander answered, "Yea, that was the matter, because they thought they should not be disproved." Said Alexander laughing: "See the subtilties of Aristotle, to take a matter both ways, *pro et contra*, etc."

But note again how well he could use the same art, which he reprehended, to serve his own humour, when, bearing a secret grudge to Callisthenes, because he was against the new ceremony of his adoration, feasting one night, where the same Callisthenes was at the table, it was moved by some after supper, for entertainment sake, that Callisthenes, who was an eloquent man, might speak of some theme or purpose, at his own choice: which Callisthenes did; chusing the praise of the Macedonian nation for his discourse, and performing the same with so good manner, as the hearers were much ravished: whereupon Alexander, nothing pleased, said, "It was easy to be eloquent upon so good a subject. But," saith he, "turn your style, and let us hear what you can say against us:" which Callisthenes presently undertook, and did with that sting and life, that Alexander interrupted him, and said, "The goodness of the cause made him eloquent before, and despite made him eloquent then again."

Consider farther, for tropes of rhetoric, that excellent use of a metaphor or translation, wherewith he taxed Antipater, who was an imperious and tyrannous governor: for when one of Antipater's friends commended him to Alexander for his moderation, that he did not degenerate, as his other lieutenants did, into the Persian pride in use of purple, but kept the ancient habit of Macedon, of black: "True (saith Alexander) but Antipater is all purple within." Or that other, when Parmenio came to him in the plain of Arbela, and shewed him the innumerable multitude of his enemies, especially as they appeared by the infinite number of lights, as it had been a new firmament of stars, and thereupon advised him to assail them by night: whereupon he answered, "That he would not steal the victory."

For matter of policy, weigh that significant distinction, so much in all ages embraced, that he made between his two friends, Mephasion and Craterus; when he said, "That the one loved Alexander, and the other loved the king:" describing the principal difference of princes best servants, that some in affection love their person, and others in duty love their crown.

Weigh also that excellent taxation of an error, ordinary with counsellors of princes, that they counsel their masters according to the model of their own mind and fortune, and not of their masters; when upon Darius's great offers, Parmenio had said, "Surely I would accept these offers, were I as Alexander;" saith Alexander, "So would I, were I as Parmenio."

Lastly, weigh that quick and acute reply, which he made when he gave so large gifts to his friends and servants, and was asked what he did reserve for himself, and he answered, "Hope:" weigh, I say, whether he had not cast up his account right, because hope must be the portion of all that resolve upon great enterprizes. For this was Caesar's portion when he went first into



Gaul, his estate being then utterly overthrown with largesses. And this was likewise the portion of that noble prince, howsoever transported with ambition, Henry duke of Guise, of whom it was usually said, that he was the greatest usurer in France, because he had turned all his estate into obligations.

To conclude therefore: as certain criticks are used to say hyperbolically, "That if all sciences were lost, they might be found in Virgil;" so certainly this may be said truly, there are the prints and footsteps of all learning in those few speeches, which are reported of this prince: the admiration of whom, when I consider him not as Alexander the Great, but as Aristotle's scholar, hath carried me too far.

As for Julius Cæsar, the excellency of his learning needeth not to be argued from his education, or his company, or his speeches; but in a farther degree doth declare itself in his writings and works; whereof some are extant and permanent, and some unfortunately perished. For, first, we see, there is left unto us that excellent history of his own wars, which he entitled only a commentary, wherein all succeeding times have admired the solid weight of matter, and the real passages, and lively images of actions and persons, expressed in the greatest propriety of words and perspicuity of narration that ever was; which that it was not the effect of a natural gift, but of learning and precept, is well witnessed by that work of his, entitled, *De analogia*, being a grammatical philosophy, wherein he did labour to make this same *vox ad placitum* to become *vox ad licitum*, and to reduce custom of speech to congruity of speech; and took, as it were, the picture of words from the life of reason.

So we receive from him, as a monument both of his power and learning, the then reformed computation of the year; well expressing, that he took it to be as great a glory to himself to observe and know the law of the heavens, as to give law to men upon the earth.

So likewise in that book of his, *Anti-Cato*, it may easily appear that he did aspire as well to victory of wit, as victory of war; undertaking therein a conflict against the greatest champion with the pen that then lived, Cicero the orator.

So again in his book of *Apophthegms*, which he collected, we see that he esteemed it more honour to make himself but a pair of tables, to take the wise and pithy words of others, than to have every word of his own to be made an apophthegm, or an oracle; as vain princes, by custom of flattery, pretend to do. And yet if I should enumerate divers of his speeches, as I did those of Alexander, they are truly such as Solomon noteth, when he saith, *Verba sapientum tanquam aculei, et tanquam clavi in altum defixi*: whereof I will only recite three, not so delectable for elegancy, but admirable for vigour and efficacy.

As first, it is reason he be thought a master of words, that could with one word appease a mutiny in his army, which was thus: The Romans, when their generals did speak to their army, did use the word *Milites*, but when the magistrates spake to the people, they did use the word *Quirites*. The soldiers were in tumult, and seditiously prayed to be cashiered; not that they so meant, but by expostulation thereof to draw Cæsar to other conditions; wherein he being resolute not to give way, after some silence, he began his speech, *Ego, Quirites*: which did admit them already cashiered; wherewith they were so surprized, crossed, and confuted, as they would not suffer him to go on in his speech, but relinquished their demands, and made it their suit, to be again called by the name of *Milites*.

The second speech was thus: Cæsar did extremely affect the name of king; and some were set on, as he passed by, in popular acclamation to salute him king: whereupon, finding the cry weak and poor, he put it off thus, in a kind of jest, as if they had mistaken his surname; *Non rex sum, sed Cæsar*; a speech, that if it be searched, the life and fulness of it can scarce be expressed: for, first, it was a refusal of the name, but yet not serious: again, it did signify an infinite confidence and magnanimity, as if he presumed Cæsar was the



## O F L E A R N I N G.

## Book I.

the greater title, as by his worthiness it is come to pass till this day; but chiefly, it was a speech of great allurements toward his own purpose; as if the state did strive with him but for a name, wherof mean families were vested; for Rex was a surname with the Romans, as well as King is with us.

The last speech which I will mention, was used to Metellus; when Cæsar, after war declared, did possess himself of the city of Rome, at which time entering into the inner treasury to take the money there accumulated, Metellus, being tribune, forbade him: whereto Cæsar said, "That if he did not desist, he would lay him dead in the place." And presently taking himself up, he added, "Young man, it is harder for me to speak it, than to do it:" *Adolescens, durius est mihi hoc dicere, quam facere.* A speech compounded of the greatest terror and greatest clemency that could proceed out of the mouth of man.

But to return, and conclude with him: it is evident, himself knew well his own perfection in learning, and took it upon him; as appeared when, upon occasion that some spake what a strange resolution it was in Lucius Sylla to resign his dictature; he scoffing at him, to his own advantage, answered, "That Sylla could not skill of letters, and therefore knew not how to dictate."

And here it were fit to leave this point, touching the concurrence of military virtue and learning (for what example should come with any grace, after those two of Alexander and Cæsar?) were it not in regard of the rareness of circumstance, that I find in one other particular, as that which did so suddenly pass from extreme scorn to extreme wonder; and it is of Xenophon the philosopher, who went from Socrates's school into Asia, in the expedition of Cyrus the younger, against king Artaxerxes. This Xenophon at that time was very young, and never had seen the wars before; neither had any command in the army, but only followed the war as a voluntary, for the love and conversation of Proxenus his friend. He was present when Falinus came in message from the great king to the Grecians, after that Cyrus was slain in the field, and they a handful of men left to themselves in the midst of the king's territories, cut off from their country by many navigable rivers, and many hundred miles. The message imported, that they should deliver up their arms, and submit themselves to the king's mercy. To which message before answer was made, divers of the army conferred familiarly with Falinus: and amongst the rest Xenophon happen'd to say: "Why, Falinus, we have now but these two things left, our arms and our virtue; and if we yield up our arms, how shall we make use of our virtue?" Whereto Falinus, smiling on him, said, "If I be not deceived, young gentleman, you are an Athenian, and, I believe, you study philosophy, and it is pretty that you say; but you are much abused, if you think your virtue can withstand the king's power." Here was the scorn: the wonder followed; which was, that this young scholar, or philosopher, after all the captains were murdered in parley by treason, conducted those ten thousand foot, through the heart of all the king's high countries, from Babylon to Græcia in safety, in despite of all the king's forces, to the astonishment of the world, and the encouragement of the Grecians in times succeeding to make invasion upon the kings of Persia; as was after purposed by Jason the Thessalian, attempted by Agellæus the Spartan, and achieved by Alexander the Macedonian, all upon the ground of the act of that young scholar.

To proceed now from imperial and military virtue, to moral and private virtue: first, it is an assured truth, which is contained in the verses;

*Scilicet ingenuas didicisse fideliter artes,*

*Emulit mores, nec sinit esse feros.*

It taketh away the wildness and barbarism, and fierceness of mens minds: but indeed the accent had need be upon *fideliter*: for a little superficial learning doth rather work a contrary effect. It taketh away all levity, temerity, and insolency, by copious suggestion of all doubts and difficulties, and acquainting the mind to balance reasons on both sides, and to turn back the first offers and conceits of the mind, and to accept of nothing but examined and tried. It taketh away vain mind,



admiration of any thing, which is the root of all weakness: for all things are admired, either because they are new, or because they are great. For novelty, no man that wadeth in learning or contemplation thoroughly, but will find that printed in his heart, *Nil novi super terram*. Neither can any man marvel at the play of puppets, that goeth behind the curtain, and adviseth well of the motion. And for magnitude, as Alexander the Great, after that he was used to great armies, and the great conquests of the spacious provinces in Asia, when he received letters out of Greece, of some fights and services there, which were commonly for a passage, or a fort, or some walled town at the most, he said, "It seemed to him, that he was advertised of the battle of the frogs, and the mice, " that the old tales went of." So certainly, if a man meditate upon the universal frame of nature, the earth with men upon it (the divineness of souls excepted) will not seem much other than an ant-hill, where some ants carry corn, and some carry their young; and some go empty, and all to and fro a little heap of dust. It taketh away or mitigateth fear of death, or adverse fortune; which is one of the greatest impediments of virtue, and imperfections of manners. For if a man's mind be deeply seasoned with the consideration of the mortality and corruptible nature of things, he will easily concur with Epictetus, who went forth one day, and saw a woman weeping for her pitcher of earth that was broken; and went forth the next day, and saw a woman weeping for her son that was dead; and thereupon said, *Heri vidi fragilem frangi, hodie vidi mortalem mori*. And therefore Virgil did excellently and profoundly couple the knowledge of causes, and the conquest of all fears together, as *concomitantia* :

*Felix, qui potuit rerum cognoscere causas,*

*Quique metus omnes, et inexorabile fatum,*

*Subiecit pedibus, strepitumque Acherontis arari.*

It were too long to go over the particular remedies which learning doth minister to all the diseases of the mind, sometimes purging the ill humours, sometimes opening the obstructions, sometimes helping digestion, sometimes increasing appetite, sometimes healing the wound and excoriation thereof, and the like; and therefore I will conclude with that which hath *rationem totius*, which is, that it disposeth the constitution of the mind not to be fixed or settled in the defects thereof, but still to be capable and susceptible of growth and reformation. For the unlearned man knows not what it is to descend into himself, or to call himself to account; nor the pleasure of that *suavisima vita, indies sentire se fieri meliorem*. The good parts he hath, he will learn to shew to the full, and use them dexterously, but not much to encrease them: the faults he hath, he will learn how to hide and colour them, but not much to amend them: like an ill mower, that mows on still, and never whets his scythe. Whereas with the learned man it fares otherwise, that he doth ever intermix the correction and amendment of his mind, with the use and employment thereof. Nay, farther, in general and in sum, certain it is, that *veritas* and *bonitas* differ but as the seal and the print: for truth prints goodness; and they be the clouds of error, which descend in the storms of passions and perturbations.

From moral virtue, let us pass on to matter of power and commandment, and consider whether in right reason there be any comparable with that, wherewith knowledge investeth and crowneth man's nature. We see, the dignity of the commandment is according to the dignity of the commanded: to have commandment over beasts, as herdmen have, is a thing contemptible; to have commandment over children, as schoolmasters have, is a matter of small honour; to have commandment over galley-slaves, is a disparagement, rather than an honour. Neither is the commandment of tyrants much better, over people which have put off the generosity of their minds: and therefore it was ever holden, that honours in free monarchies and commonwealths had a sweetness more than in tyrannies, because the commandment extendeth more over the wills of men, and not only over their deeds and services. And therefore, when Virgil putteth himself forth to attribute to Augustus Cæsar the best of human honours, he doth it in these words;

*ut Etorque*



*vis forque volentes*

*Per populos dat jura, viamque efficit Olympo.*

But yet the commandment of knowledge is yet higher than the commandment over the will; for it is a commandment over the reason, belief, and understanding of man, which is the highest part of the mind, and giveth law to the will itself: for there is no power on earth, which setteth up a barone, or chair of state, in the spirits and souls of men, and in their cogitations, imaginations, opinions, and beliefs, but knowledge and learning. And therefore we see the detestable and extreme pleasure that arch-hereticks, and false prophets, and impostors are transported with, when they once find in themselves that they have a superiority in the faith and conscience of men; so great, as, if they have once tasted of it, it is seldom seen that any torture or persecution can make them relinquish or abandon it. But as this is that which the author of the *Revelation* calleth *the depth*, or profoundness, of *Satan*; so, by argument of contraries, the just and lawful sovereignty over mens understanding, by force of truth rightly interpreted, is that which approacheth nearest to the similitude of the divine rule.

As for fortune and advancement, the beneficence of learning is not so confined to give fortune only to states and commonwealths, as it doth not likewise give fortune to particular persons. For it was well noted long ago, that Homer hath given more men their livings, than either Sylla, or Cæsar, or Augustus ever did, notwithstanding their great largesses and donatives, and distributions of lands to so many legions; and no doubt it is hard to say, whether arms, or learning have advanced greater numbers. And in case of sovereignty we see, that if arms or descent have carried away the kingdom, yet learning hath carried the priesthood, which ever hath been in some competition with empire.

Again, for the pleasure and delight of knowledge and learning, it far surpasseth all other in nature: for, shall the pleasures of the affections so exceed the pleasures of the senses, as much as the obtaining of desire or victory exceedeth a song or a dinner; and must not, of consequence, the pleasures of the intellect, or understanding, exceed the pleasures of the affections? We see in all other pleasures there is satiety, and after they be used, their verdure departeth; which sheweth well they be but deceits of pleasure, and not pleasures; and that it was the novelty which pleased, and not the quality; and therefore we see that voluptuous men turn friars, and ambitious princes turn melancholy. But of knowledge there is no satiety, but satisfaction and appetite are perpetually interchangeable; and therefore appeareth to be good in itself simply, without fallacy or accident. Neither is that pleasure of small efficacy and contentment to the mind of man, which the poet Lucretius describeth elegantly,

*Suave mari magna, turbantibus æquora ventis, etc.*

“It is a view of delight (saith he) to stand or walk upon the shore side, and to see a ship tossed with tempest upon the sea; or to be in a fortified tower, and to see two battles join upon a plain: but it is a pleasure incomparable, for the mind of man to be settled, landed, and fortified in the certainty of truth; and from thence to descry and behold the errors, perturbations, labours, and wanderings up and down of other men.”

Lastly, leaving the vulgar arguments, that by learning man excelleth man in that wherein man excelleth beasts; that by learning man ascendeth to the heavens and their motions, where in body he cannot come, and the like: let us conclude with the dignity and excellency of knowledge and learning in that, whereunto man's nature doth most aspire, which is, immortality or continuance: for to this tendeth generation, and raising of houses and families; to this tend buildings, foundations, and monuments; to this tendeth the desire of memory, fame, and celebration, and in effect the strength of all other human desires. We see then how far the monuments of wit and learning are more durable, than the monuments of power, or of the hands. For have not the verses of Homer continued twenty-five hundred years, or more, without the loss of a syllable or letter; during which time, infinite palaces, temples, castles, cities, have been decayed and demolished? It is not possible to have the true pictures or statues of Cyrus, Alexander, Cæsar; no, nor of the kings or great personages of much later



years; for the originals cannot last, and the copies cannot but lose of the life and truth. But the images of mens wits and knowledges remain in books, exempted from the wrong of time, and capable of perpetual renovation. Neither are they fitly to be called images, because they generate still, and cast their seeds in the minds of others, provoking and causing infinite actions and opinions in succeeding ages: so that, if the invention of the ship was thought so noble, which carrieth riches and commodities from place to place; and consociateth the most remote regions in participation of their fruits; how much more are letters to be magnified, which, as ships, pass through the vast seas of time, and make ages so distant to participate of the wisdom, illuminations, and inventions, the one of the other? Nay farther, we see, some of the philosophers which were least divine, and most immersed in the senses, and denied generally the immortality of the soul; yet came to this point, that whatsoever motions the spirit of man could act and perform without the organs of the body, they thought, might remain after death, which were only those of the understanding, and not of the affections: so immortal and incorruptible a thing did knowledge seem unto them to be. But we, that know by divine revelation, that not only the understanding, but the affections purified; not only the spirit, but the body changed, shall be advanced to immortality, do disclaim these rudiments of the senses. But it must be remembered both in this last point, and so it may likewise be needful in other places, that in probation of the dignity of knowledge or learning, I did in the beginning separate divine testimony from human, which method I have pursued, and so handled them both apart.

Nevertheless I do not pretend, and I know it will be impossible for me, by any pleading of mine to reverse the judgment, either of Æsop's cock, that preferred the barley-corn before the gem; or of Midas, that being chosen judge between Apollo, president of the Muses, and Pan, god of the flocks, judged for plenty; or of Paris, that judged for beauty and love, against wisdom and power; or of Agrippina, *occidat matrem, modo imperet*, that preferred empire with any condition never so detestable; or of Ulysses, *qui vetulam prætulit immortalitati*, being a figure of those which prefer custom and habit before all excellency; or of a number of the like popular judgments. For these things must continue as they have been: but so will that also continue, whereupon learning hath ever relied, and which faileth not: *justificata est Sapientia a stultis suis*.



THE  
SECOND BOOK

OF  
FRANCIS BACON:

OF THE  
PROFICIENCE OR ADVANCEMENT

OF

LEARNING,  
DIVINE and HUMAN.

TO THE KING.

I might seem to have more convenience, though it come often otherwise to pass (excellent king) that those, which are fruitful in their generations, and have in themselves the foresight of immortality in their descendants, should likewise be more careful of the good estate of future times, unto which, they know, they must transmit and commend over their dearest pledges. Queen Elizabeth was a sojourner in the world, in respect of her unmarried life, and was a blessing to her own times; and yet so as the impression of her good government, besides her happy memory, is not without some effect which doth survive her. But to your majesty, whom God hath already blessed with so much royal issue, worthy to continue and represent you for ever; and whose youthful and fruitful bed doth yet promise many the like renovations; it is proper and agreeable to be conversant, not only in the transitory parts of good government, but in those acts also which are in their nature permanent and perpetual: amongst the which (if affection do not transport me) there is not any more worthy, than the farther endowment of the world with sound and fruitful knowledge. For why should a few received authors stand up like Hercules's columns; beyond which there should be no sailing or discovering, since we have so bright and benign a star as your majesty, to conduct and prosper us? To return therefore where we left, it remaineth, to consider of what kind those acts are, which have been undertaken, and performed by kings and others, for the increase and advancement of learning, wherein I purpose to speak actively, without digressing or dilating.

Let this ground therefore be laid, that all works are overcome by amplitude of reward, by soundness of direction, and by the conjunction of labours. The first multiplieth endeavour, the second preventeth error, and the third supplieth the frailty of man; but the principal of these is direction: for *claudus in vita anverrit cursorem extra viam*; and Solomon excellently setteth it down, *If the iron be not sharp, it requireth more strength; but wisdom is that which prevaileth*.



*vaileth*: signifying, that the invention or election of the mean is more effectual than any enforcement, or accumulation of endeavours. This I am induced to speak, for that (not derogating from the noble intention of any that have been deservers towards the state of learning) I do observe, nevertheless, that their works and acts are rather matters of magnificence and memory, than of progression and proficience, and tend rather to augment the mass of learning in the multitude of learned men, than to rectify or raise the sciences themselves.

The works or acts of men towards learning are conversant about three objects: the places of learning, the books of learning, and the persons of the learned. For as water, whether it be the dew of heaven, or the springs of the earth, doth scatter and lose itself in the ground, except it be collected into some receptacle, where it may by union comfort and sustain itself (and for that cause the industry of man hath made and framed spring-heads, conduits, cisterns, and pools, which men have accustomed likewise to beautify and adorn with accomplishments of magnificence and state, as well as of use and necessity) so this excellent liquor of knowledge, whether it descend from divine inspiration, or spring from human sense, would soon perish and vanish to oblivion, if it were not preserved in books, traditions, conferences, and places appointed; as universities, colleges, and schools, for the receipt and comforting of the same.

The works, which concern the seats and places of learning, are four; foundations and buildings, endowments with revenues, endowments with franchises and privileges, institutions and ordinances for government; all tending to quietness and privateness of life, and discharge of cares and troubles, much like the stations which Virgil prescribeth for the hiving of bees:

*Principio sedes apibus statique petenda,*

*Quo neque sit ventis aditus, etc.*

The works touching books are two; first libraries, which are as the shrines where all the reliicks of the ancient saints, full of true virtue, and that without delusion or imposture, are preserved and reposed: secondly, new editions of authors, with more correct impressions, more faithful translations, more profitable glosses, more diligent annotations, and the like.

The works pertaining to the persons of learned men (besides the advancement and countenancing of them in general) are two; the reward and designation of readers in sciences already extant and invented; and the reward and designation of writers and enquirers concerning any parts of learning not sufficiently laboured and prosecuted.

These are summarily the works and acts, wherein the merits of many excellent princes, and other worthy personages have been conversant. As for any particular commemorations, I call to mind what Cicero said, when he gave general thanks; *Difficile non aliquem, ingratum quonquam praterire*. Let us rather, according to the Scriptures, look unto that part of the race which is before us, than look back to that which is already attained.

First therefore, amongst so many great foundations of colleges in Europe, I find strange that they are all dedicated to professions, and none left free to arts and sciences at large. For if men judge that learning should be referred to action, they judge well; but in this they fall into the error described in the ancient fable, in which the other parts of the body did suppose the stomach had been idle, because it neither performed the office of motion, as the limbs do, nor of sense, as the head doth; but yet, notwithstanding, it is the stomach that diggesth and distributeth to all the rest: so if any man think philosophy and universality to be idle studies, he doth not consider that all professions are from thence served and supplied. And this I take to be a great cause, that hath hinder'd the progression of learning, because these fundamental knowledges have been studied but in passage. For if you will have a tree bear more fruit than it hath used to do, it is not any thing you can do to the boughs, but it is the stirring of the earth, and putting new mould about the roots, that must work it. Neither is it to be forgotten, that this dedicating of foundations and dotations to professor learning, hath not only had a malign aspect and influence upon the growth of sciences, but hath also been prejudicial to states and governments.



ments. For hence it proceedeth that princes find a solitude in regard of able men to serve them in causes of state, because there is no education collegiate which is free, where such as were so disposed might give themselves to histories, modern languages, books of policy and civil discourse, and other the like enablements unto service of state.

And because founders of colleges do plant, and founders of lectures do water, it followeth well in order, to speak of the defect which is in publick lectures; namely, in the smallness and meanness of the salary or reward, which in most places is assigned unto them; whether they be lectures of arts, or of professions. For it is necessary to the progression of sciences, that readers be of the most able and sufficient men, as those which are ordained for generating and propagating of sciences, and not for transitory use. This cannot be, except their condition and endowment be such, as may content the ablest man to appropriate his whole labour, and continue his whole age in that function and attendance, and therefore must have a proportion answerable to that mediocrity or competency of advancement, which may be expected from a profession, or the practice of a profession. So as, if you will have sciences flourish, you must observe David's military law, which was, "That those which staid with the carriage, should have equal part with those which were in the action;" else will the carriages be ill attended. So readers in sciences are indeed the guardians of the stores, and provisions of sciences, whence men in active courses are furnished, and therefore ought to have equal entertainment with them; otherwise if the fathers in sciences be of the weakest sort, or be ill-maintained,

*Et patrum invalidi referent jejunia nati.*

Another defect I note, wherein I shall need some alchemist to help me, who call upon men to sell their books, and to build furnaces, quitting and forsaking Minerva and the Muses as barren virgins, and relying upon Vulcan. But certain it is, that unto the deep, fruitful, and operative study of many sciences, especially natural philosophy and physick, books be not only the instrumentals wherein also the beneficence of men hath not been altogether wanting: for, we see, spheres, globes, astrolabes, maps, and the like, have been provided as appurtenances to astronomy, and cosmography, as well as books; we see likewise, that some places instituted for physick have annexed the commodity of gardens for similes of all sorts, and do likewise command the use of dead bodies for anatomies. But these do respect but a few things. In general, there will hardly be any main proficience in the disclosing of nature, except there be some allowance for expences about experiments; whether they be experiments appertaining to Vulcanus or Dædalus, furnace or engine, or any other kind: and therefore as secretaries and spies of princes and states bring in bills for intelligence, so you must allow the spies and intelligencers of nature to bring in their bills, or else you shall be ill advertised.

And if Alexander made such a liberal assignation to Aristotle of treasure for the allowance of hunters, fowlers, fishers, and the like, that he might compile an history of nature, much better do they deserve it that travel in arts of nature.

Another defect which I note, is an intermission or neglect, in those which are governours in universities, of consultation; and in princes, or superior persons, of visitation: to enter into account and consideration, whether the readings, exercises, and other customs appertaining unto learning, anciently begun, and since continued, be well instituted or no, and thereupon to ground an amendment or reformation in that which shall be found inconvenient. For it is one of your majesty's own most wise and princely maxims, "That in all usages and precedents, the times be consider'd wherein they first began, which if they were weak or ignorant, it derogateth from the authority of the usage, and leaveth "it for suspect." And therefore in as much as most of the usages and orders of the universities were derived from more obscure times, it is the more requisite they be re-examined. In this kind I will give an instance or two, for example sake, of things that are the most obvious and familiar: the one is a matter, which though it be ancient and general, yet I hold it to be an error, which is, that scholars in universities come too soon and too unripe to logick and rhetoric,



arts fitter for graduates than children and novices ; for these two, rightly taken, are the gravest of sciences, being the arts of arts, the one for judgment, the other for ornament. And they be the rules and directions how to set forth and dispose matter ; and therefore for minds empty and unfraght with matter, and which have not gathered that which Cicero calleth *syntax* and *supellex*, stuff and variety, to begin with those arts (as if one should learn to weigh, or to measure, or to paint the wind) doeth work but this effect, that the wisdom of those arts, which is great and universal, is almost made contemptible, and is degenerate into childish sophistry and ridiculous affectation. And farther, the untimely learning of them hath drawn on, by consequence, the superficial and unprofitable teaching and writing of them, as fitteth indeed to the capacity of children. Another, is a lack I find in the exercises used in the universities, which do make too great a divorce between invention and memory ; for their speeches are either premeditate *in verbis conceptis*, where nothing is left to invention ; or merely extemporal, where little is left to memory ; whereas in life and action there's least use of either of these, but rather of intermixtures of premeditation and invention, notes and memory ; so as the exercise fitteth not the practice, nor the image the life ; and it is ever a true rule in exercises, that they be framed as near as may be to the life of practice, for otherwise they do pervert the motions and faculties of the mind, and not prepare them. The truth whereof is not obscure, when scholars come to the practices of professions, or other actions of civil life, which when they set into, this want is soon found by themselves, and sooner by others. But this part, touching the amendment of the institutions and orders of universities, I will conclude with the clause of Cæsar's letter to Oppius and Balbus, *Hoc quemadmodum fieri possit, nonnulla mihi in mentem veniunt, et multa reperiri possunt : de his rebus rogo vos, ut cogitationem suscipiatis.*

Another defect, which I note ascendeth a little higher than the precedent : for as the proficience of learning consisteth much in the orders and institutions of universities in the same states and kingdoms, so it would be yet more advanced, if there were more intelligence mutual between the universities of Europe, than now there is. We see there be many orders and foundations, which though they be divided under several sovereignties and territories, yet they take themselves to have a kind of contract, fraternity, and correspondence one with another, inso-much as they have provincials and generals. And surely as nature createth brotherhood in families, and arts mechanical contract brotherhoods in commonalties, and the anointment of God superinduceth a brotherhood in kings and bishops : so in like manner there cannot but be a fraternity in learning and illumination, relating to that paternity which is attributed to God, who is called the father of illuminations or lights.

The last defect which I will note is, that there hath not been, or very rarely been, any publick designation of writers or enquirers concerning such parts of knowledge, as may appear not to have been already sufficiently laboured or undertaken : unto which point it is an inducement, to enter into a view and examination what parts of learning have been prosecuted, and what omitted ; for the opinion of plenty is amongst the causes of want, and the great quantity of books maketh a shew rather of superfluity than lack ; which surcharge, nevertheless, is not to be remedied by making no more books, but by making more good books, which, as the serpent of Moles, might devour the serpents of the enchanters.

The removing of all the defects formerly enumerated, except the last, and of the active part also of the last (which is the designation of writers) are *opera basilica* ; towards which the endeavours of a private man may be but as an image in a cross way, that may point at the way, but cannot go it. But the inducing part of the latter (which is the survey of learning) may be set forward by private travel : wherefore I will now attempt to make a general and faithful perambulation of learning, with an enquiry what parts thereof lie fresh and waste, and not improved and converted by the industry of man ; to the end, that such a plot, made and recorded to memory, may both minister light to any publick designation, and also serve to excite voluntary endeavours : wherein nevertheless, my purpose is at this time to note only omissions and deficiencies, and not to make any redargution

of





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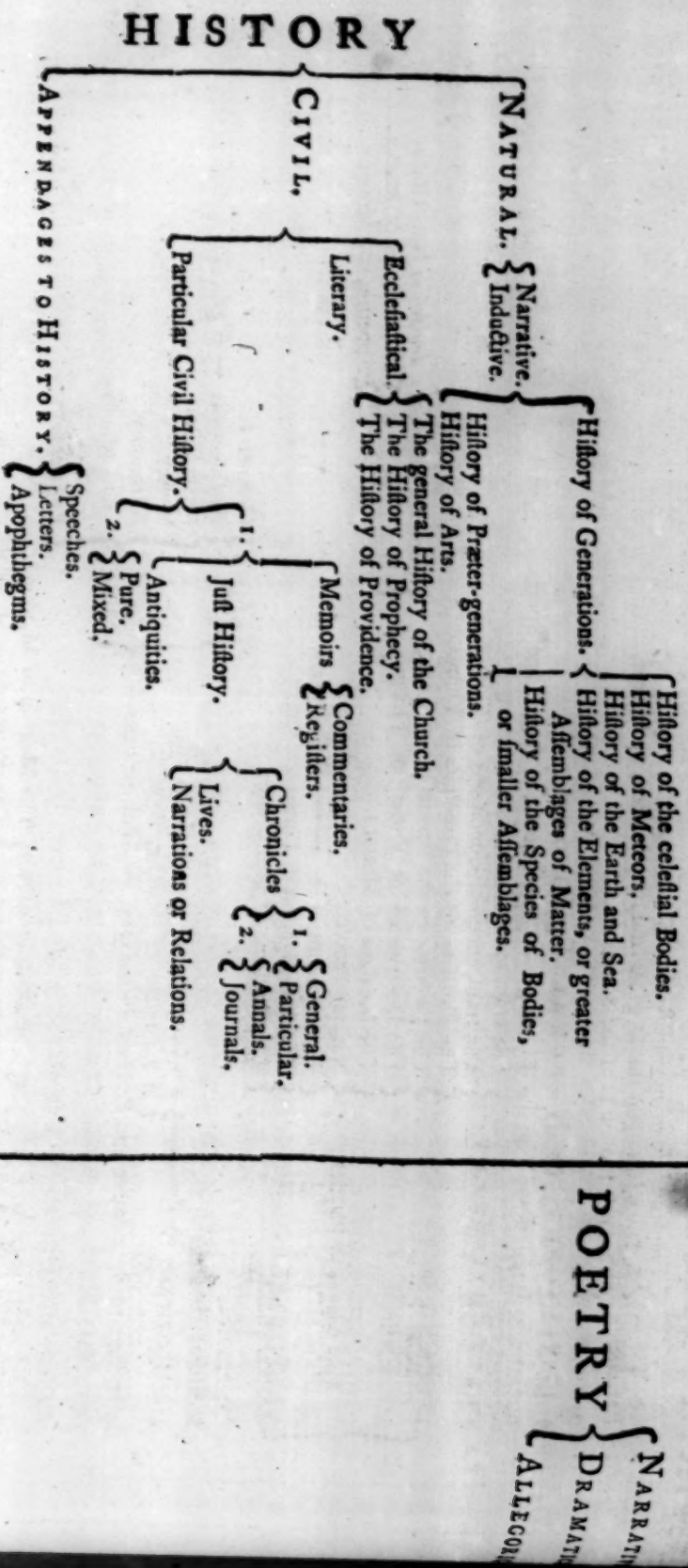
THE NEW YORK TIMES

HISLOVA



MEMORY

IMAGINATION





R E A S O N.

INSPIRED THEOLOGY, or DIVINITY. Its Division left to Divines.

Three Appendages to Inspired Theology. { The true Use of human Reason in Theology. { A Discourse upon the Degrees of Unity in the City of God. { The first Flowings of the Scriptures.

DIVINE PHILOSOPHY, or NATURAL THEOLOGY.

Appendage both to Inspired and Natural Theology. — The Science of Angels and Spirits.

PRIMARY PHILOSOPHY.

Particular Physicks . . . . . { Concrete Physicks; divided as Nat. History. { Abstract Physicks. { The Schemes of Matter. { Appetites and Motions. { Appendages to Physicks { The Measure of Motions. { The Opinions of the ancient Philosophers. { The Investigation of Forms. { The Doctrine of final Causes.

SPECULATIVE.

Metaphysicks . . . . . { Pure { Geometry. { Arithmetick. — Algebra. { Perceptive. { Music. { Astronomy. { Cosmography. { Architecture. { Enginery. { Mechanics. { Natural Magick. { Appendages to Practical { An Inventory of human Knowledge. { A Kalender of leading Experiments. { Appendage to Speculative and Practical Philosophy. — Mathematicks. . . . . { Mixed { Pure { Arithmetic. { Algebra. { Perceptive. { Music. { Astronomy. { Cosmography. { Architecture. { Enginery.

NATURAL PHILOSOPHY.

THE GENERAL SCIENCE OF THE NATURE AND STATE OF MAN, { The Doctrine of the human Person. { The Miseries of Mankind. { The Prerogatives of Mankind. { Notices or Indication . . . . . { Physiognomy. { Interpretation of Dreams. { The Doctrine of Union.

THE DOCTRINE OF THE HUMAN BODY.

Medicine. { Cure of Diseases. { Prolongation of Life. { Civil. { Effeminate. { Arts of Activity. { Arts of Endurance: { Painting. { Music, etc. { The Doctrine of the sensitive Soul. { The Doctrine of Sense and Sensibility. { The Doctrine of the Substance and Faculties of the Soul. { Divination. { Fascination. { Two Appendages to this Doctrine.

HUMAN PHILOSOPHY.

HUMAN DOCTRINE.

THE DOCTRINE OF THE HUMAN SOUL.

The Doctrine of the Use and Objects of the Faculties.

LOGICKS.

Art of Invention. { The Invention of Arts . . . . . { The Process from Experiment to Experiment, or Learned Experience. { The Process from Experiments to Axioms, or the Art of Induction. { The Invention of Arguments. { Promptuary. { General. { Topical . . . . . { Particular. { Judgment by Induction. { Judgment by Syllogism. { 1. { Reduction direct. { 2. { Reduction inverse. { Analyticks. { Doctrine of Confutations. { Confutat. of Sophisms. { Confutat. of Interpretation. { Conf. of Idols or false Notions. { Appendix to the Art of Judging. — The Affignation of Demonstrations according to the nature of the Subject. { The Doctrine of Helps for the Memory. { Penotion. { Emblem. { Art of Custody. . . . . { The Doctrine of the Memory itself. { The Doctrine of the Marks of Things. { Hieroglyphicks and Gestures. { Real Characters.

Doctrines of Tradition.

The Doctrine of the Organ of Speech, or Literary Grammar, { The Doctrine of the Marks of Things. { Sound. Measure. Accent. { Art of Writing. { Alphabet. { Cypher. Decyphering. { Philosophical Grammar. { Method of Speech, or Doctrine of traditive Prudence. { Doctrinal and initiative. { Open and concealed. { Aphoristical and regular. { Question and Answer. { Method of conquering Prejudice. { The Disposition of a whole Work. { The Limitation of Propositions. { The Doctrine of the Illustration of Speech, or Rhetorick. { A Collection of Sophisms. { A Collection of studied Antithets. { Three Appendages to this Doctrine. { A Collection of lesser Forms of Speech.

Two Appendages to the Doctrine of Tradition. { The Art of Criticism. { School-learning.

ETHICKS.

The Exemplar of Good. . . . . { Simple. { Individual or Self Good. { Active. { Conservative. { Compound. { Good of Communion. { Passive. { Perfective. { Duties of Man in common. { Respective Duties. { The Cultivation of the Mind. { The Doctrine of Mens Natures and Dispositions. { The Enquiry into the Affections. { The Doctrine of Remedies. { Appendix to the Cultivation of the Mind. — The Relation between the Good of the Mind and the Good of the Body. { Prudence in Conversation. { The Doctrine of various Occasions. { Prudence in Business . . . . . { The Doctrine of rising in Life. { The Doctrine of enlarging the Bounds of Empire. { Prudence in Government. { The Doctrine of universal Justice.

CIVIL KNOWLEDGE.





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of errors, or incomplete prosecutions: for it is one thing to set forth what ground lieth unmanured, and another thing to correct ill husbandry in that which is manured.

In the handling and undertaking of which work I am not ignorant what it is that I do now move and attempt, nor insensible of mine own weakness to sustain my purpose: but my hope is, that if my extreme love to learning carry me too far, I may obtain the excuse of affection; for that "it is not granted to man to love "and to be wife." But, I know well, I can use no other liberty of judgment than I must leave to others; and I, for my part, shall be indifferently glad either to perform myself, or accept from another, that duty of humanity; *Nam qui erranti conier monstrat viam, etc.* I do foresee likewise, that of those things which I shall enter and register, as deficiencies and omissions, many will conceive and censure, that some of them are already done and extant; others to be but curiosities, and things of no great use; and others to be of too great difficulty, and almost impossibility to be compassed and effected: but for the two first, I refer myself to the particulars; for the last, touching impossibility, I take it, those things are to be held possible which may be done by some person, though not by every one; and which may be done by many, though not by any one; and which may be done in succession of ages, though not within the hour-glass of one man's life; and which may be done by publick designation, though not by private endeavour.

But, notwithstanding, if any man will take to himself rather that of Solomon, *Dicit piger, Leo est in via*, than that of Virgil, *Possunt quia posse videntur*: I shall be content that my labours be esteemed but as the better sort of witness; for as it asketh some knowledge to demand a question not impertinent, so it requireth some sense to make a wish not absurd.

THE parts of human learning have reference to the three parts of man's Understanding, which is the seat of learning; History to his Memory, Poesy to his Imagination, and Philosophy to his Reason. Divine learning receiveth the same distribution, for the spirit of man is the same, though the revelation of oracle and sense be diverse: so as theology consisteth also of history of the church; of parables, which is divine poesy; and of holy doctrine or precept: for as for that part which seemeth supernumerary, which is prophecy, it is but divine history; which hath that prerogative over human, as the narration may be before the fact, as well as after.

HISTORY is natural, civil, ecclesiastical, and literary, whereof the three first I allow as extant, the fourth I note as deficient. For no man hath propounded to himself the general state of learning to be described and represented from age to age, as many have done the works of nature, and the state civil and ecclesiastical; without which the history of the world seemeth to me to be as the statue of Polyphemus with his eye out, that part being wanting which doth most shew the spirit and life of the person: And yet I am not ignorant, that in divers particular sciences, as of the juriconsults, the mathematicians, the rhetoricians, the philosophers, there are set down some small memorials of the schools, authors and books; and so likewise some barren relations touching the invention of arts or usages.

But a just story of learning, containing the antiquities and originals of knowledges and their sects, their inventions, their traditions, their diverse administrations and managings, their flourishing, their oppositions, decays, depressions, oblivions, removes, with the causes and occasions of them, and all other events concerning learning, throughout the ages of the world, I may truly affirm to be wanting.

The use and end of which work, I do not so much design for curiosity, or satisfaction of those that are the lovers of learning, but chiefly for a more serious and grave purpose, which is this in few words, that it will make learned men wise in the use and administration of learning. For it is not St Augustine's

nor



nor St. Ambrose's works that will make so wise a divine, as ecclesiastical history thoroughly read and observed; and the same reason is of learning.

HISTORY of nature is of three sorts; of nature in course, of nature erring or varying, and of nature altered or wrought; that is, history of creatures, history of marvels, and history of arts.

The first of these, no doubt, is extant, and that in good perfection; the two latter are handled so weakly and unprofitably, as I am moved to note them as deficient.

*Historia  
naturæ  
erranti.*

For I find no sufficient or competent collection of the works of nature, which have a digression and deflexion from the ordinary course of generations, productions, and motions, whether they be singularities of place and region, or the strange events of time and chance, or the effects of yet unknown properties, or the instances of exception to general kinds: it is true, I find a number of books of fabulous experiments and secrets, and frivolous impostures for pleasure and strangeness: but a substantial and severe collection of the heteroclies, or irregulars of nature, well examined and described, I find not, especially not with due rejection of fables, and popular errors: for as things now are, if an untruth in nature be once on foot, what by reason of the neglect of examination and countenance of antiquity, and what by reason of the use of the opinion in similitudes and ornaments of speech, it is never called down.

The use of this work, honoured with a precedent in Aristotle, is nothing less than to give contentment to the appetite of curious and vain wits, as the manner of mirabilaries is to do; but for two reasons, both of great weight: the one, to correct the partiality of axioms and opinions, which are commonly framed only upon common and familiar examples; the other, because from the wonders of nature is the nearest intelligence and passage towards the wonders of art: for it is no more, but by following, and as it were hounding nature in her wanderings, to be able to lead her afterwards to the same place again.

Neither am I of opinion, in this history of marvels, that superstitious narrations of sorceries, witchcrafts, dreams, divinations, and the like, where there is an assurance and clear evidence of the fact, be altogether excluded. For it is not yet known in what cases, and how far effects attributed to superstition do participate of natural causes: and therefore howsoever the practice of such things is to be condemned, yet from the speculation and consideration of them light may be taken, not only for the discerning of the offences, but for the farther disclosing of nature. Neither ought a man to make scruple of entering into these things for inquiry of truth, as your majesty hath shewed in your own example; who with the two clear eyes of religion and natural philosophy have looked deeply and wisely into these shadows, and yet proved yourself so be of the nature of the sun, which passeth through pollutions, and itself remains as pure as before.

But this I hold fit, that these narrations, which have mixture with superstition, be sorted by themselves, and not to be mingled with the narrations, which are merely and sincerely natural.

But as for the narrations touching the prodigies and miracles of religions, they are either not true, or not natural; and therefore impertinent for the story of nature.

*Historia  
mechanica.*

For history of nature wrought, or mechanical, I find some collections made of agriculture, and likewise of manual arts, but commonly with a rejection of experiments familiar and vulgar.

For it is esteemed a kind of dishonour unto learning, to descend to enquiry or meditation upon matters mechanical, except they be such as may be thought secrets, rarities, and special subtilties; which humour of vain and supercilious arrogance is justly derided in Plato; where he brings in Hippias, a vaunting sophist, disputing with Socrates, a true and unfeigned inquirer of truth; where the subject being touching beauty, Socrates, after his wandering manner of inductions, put first an example of a fair virgin, and then of a fair horse, and then



## Book II.

then of a fair pot well glazed, whereat Hippias was offended; and said, "More than for courtesy's sake, he did think much to dispute with any that did alledge such base and sordid instances;" whereunto Socrates answered, "You have reason, and it becomes you well, being a man so trim in your vestments," *etc.* And so goeth on in irony.

But the truth is, they be not the highest instances that give the securest information; as may be well expressed in the tale so common of the philosopher, that while he gazed upwards to the stars, fell into the water; for if he had looked down he might have seen the stars in the water, but looking aloft, he could not see the water in the stars. So it cometh often to pass, that mean and small things discover great, better than great can discover the small: and therefore Aristotle noteth well, "that the nature of every thing is best seen in his smallest portions." And for that cause he enquireth the nature of a commonwealth, first in a family, and the simple conjugations of man and wife, parent and child, master and servant, which are in every cottage. Even so likewise the nature of this great city of the world, and the policy thereof, must be first sought in mean concordances and small portions. So we see how that secret of nature, of the turning of iron, touched with the loadstone, towards the north, was found out in needles of iron, not in bars of iron.

But if my judgment be of any weight, the use of History Mechanical is of all others the most radical and fundamental towards natural philosophy, such natural philosophy as shall not vanish in the fume of subtile, sublime, or delectable speculation, but such as shall be operative to the endowment and benefit of man's life: for it will not only minister and suggest for the present many ingenious practices in all trades, by a connection and transferring of the observations of one art to the use of another, when the experiences of several mysteries shall fall under the consideration of one man's mind; but farther, it will give a more true and real illumination concerning causes and axioms, than is hitherto attained.

For like as a man's disposition is never well known till he be crossed, nor Proteus ever changed shapes, till he was straitened and held fast; so the passages and variations of nature cannot appear so fully in the liberty of nature, as in the trials and vexations of art.

For Civil History, it is of three kinds, not unfitly to be compared with the three kinds of pictures or images: for of pictures or images, we see, some are unfinished, some are perfect, and some are defaced. So of histories we may find three kinds, Memorials, Perfect Histories, and Antiquities; for memorials are history unfinished, or the first or rough draughts of history; and antiquities are history defaced, or some remnants of history which have casually escaped the shipwreck of time.

Memorials, or preparatory history, are of two sorts, whereof the one may be termed Commentaries, and the other Registers. Commentaries are they which set down a continuance of the naked events and actions, without the motives or designs, the counsels, the speeches, the pretexts, the occasions, and other passages of action: for this is the true nature of a commentary (though Cæsar, in modesty mixed with greatness, did for his pleasure apply the name of a Commentary to the best history of the world.) Registers are collections of publick acts, as decrees of council, judicial proceedings, declarations and letters of state, orations and the like, without a perfect continuance or contexture of the thread of the narration.

Antiquities, or remnants of history, are, as was said, *tantum tabula naufragii*, when industrious persons, by an exact and scrupulous diligence and observation, out of monuments, names, words, proverbs, traditions, private records and evidences, fragments of stories, passages of books that concern not story, and the like, do save and recover somewhat from the deluge of time.

In these kind of imperfect histories I do assign no deficiency, for they are *tantum imperfecte misa*, and therefore any deficiency in them is but their nature.



As for the corruptions and moths of history, which are Epitomes, the use of them deserveth to be banished, as all men of sound judgment have confessed, as those that have fretted and corroded the sound bodies of many excellent histories, and wrought them into base and unprofitable dregs.

History, which may be called Just and Perfect History, is of three kinds, according to the object which it propoundeth, or pretendeth to represent: for it either representeth a time, or a person, or an action. The first we call Chronicles, the second Lives, and the third Narrations, or Relations.

Of these, although the first be the most complete and absolute kind of history, and hath most estimation and glory, yet the second excelleth it in profit and use, and the third in verity and sincerity. For history of times representeth the magnitude of actions, and the publick faces and deportments of persons, and passeth over in silence the smaller passages and motions of men and matters.

But such being the wormanship of God, as he doth hang the greatest weight upon the smallest wies, *maxima e minimis suspendens*, it comes therefore to pass, that such histories do rather set forth the pomp of business, than the true and inward resorts thereof. But lives, if they be well written, propounding to themselves a person to represent, in whom actions both greater and smaller, publick and private, have a commixture, must of necessity contain a more true, native, and lively representation. So again narrations and relations of actions, as the War of Peloponnesus, the Expedition of Cyrus Minor, the Conspiracy of Catiline, cannot but be more purely and exactly true, than histories of times, because they may chuse an argument comprehensible within the notice and instructions of the writer: whereas he that undertaketh the story of a time, especially of any length, cannot but meet with many blanks and spaces, which he must be forced to fill up out of his own wit and conjecture.

For the History of Times (I mean of civil history) the providence of God hath made the distribution: for it hath pleased God to ordain and illustrate two exemplar states of the world for arms, learning, moral virtue, policy, and laws. The state of Gracia, and the state of Rome; the histories whereof occupying the middle part of time, have more ancient to them, histories which may by one common name be termed the Antiquities of the world; and after them, histories which may be likewise called by the name of Modern History.

Now to speak of the deficiencies. As to the heathen antiquities of the world, it is in vain to note them for deficient: deficient they are no doubt, consisting most of fables and fragments, but the deficiency cannot be holpen; for antiquity is like fame, *caput inter nebula condit*, her head is muffled from our sight. For the history of the exemplar states, it is extant in good perfection. Not but I could wish there were a perfect course of history for Gracia from Theleus to Philopemen (what time the affairs of Gracia were drowned and extinguished in the affairs of Rome) and for Rome from Romulus to Justinianus, who may be truly said to be *ultimus Romanorum*. In which sequences of story the text of Thucydides and Xenophon in the one, and the text of Livius, Polybius, Sallustius, Caesar, Appianus, Tacitus, Herodianus, in the other, to be kept entire, without any diminution at all, and only to be supplied and continued. But this is matter of magnificence, rather to be commended than required: and we speak now of parts of learning supplemental, and not of supererogation.

But for Modern Histories, whereof there are some few very worthy, but the greater part beneath mediocrity, leaving the care of foreign stories to foreign states, because I will not be *curiosus in aliena republica*, I cannot fail to represent to your majesty the unworthiness of the history of England in the main continuance thereof, and the partiality and obliquity of that of Scotland, in the latest and largest author that I have seen; supposing that it would be honour for your majesty, and a work very memorable, if this island of Great Britain, as it is now joined in monarchy for the ages to come, so were joined in one history for the times passed, after the manner of the sacred history, which draweth down the story of the ten tribes, and of the two tribes, as twins, together. And if it shall seem that the greatness of this work may make it  
less



less exactly performed, there is an excellent period of a much smaller compass of time, as to the story of England; that is to say, from the uniting of the roses, to the uniting of the kingdoms: a portion of time, wherein, to my understanding, there hath been the rarest varieties, that, in like number of successions, of any hereditary monarchy hath been known: for it beginneth with the mixed adeption of a crown by arms and title; an entry by battle, an establishment by marriage; and therefore times answerable, like waters after a tempest, full of working and swelling, though without extremity of storm; but well passed through by the wisdom of the pilot, being one of the most sufficient kings of all the number. Then followeth the reign of a king, whose actions, howsoever conducted, had much intermixture with the affairs of Europe, balancing and inclining them variably; in whose time also began that great alteration in the state ecclesiastical, an action which seldom cometh upon the stage. Then the reign of a minor: then an offer of an usurpation (though it was but as *febris ephemera*;) then the reign of a queen matched with a foreigner: then of a queen that lived solitary and unmarried, and yet her government so masculine, as it had greater impression and operation upon the states abroad, than it any ways received from thence. And now last, this most happy and glorious event, that this island of Britain, divided from all the world, should be united in itself: and that oracle of rest, given to *Aeneas*, *Antiquam exquirite matrem*, should now be performed and fulfilled upon the nations of England and Scotland, being now reunited in the ancient mother name of Britain, as a full period of all instability and peregrinations: so that as it cometh to pass in massive bodies, that they have certain trepidations and waverings before they fix and settle; so it seemeth that by the providence of God this monarchy, before it was to settle in your majesty and your generations (in which, I hope, it is now established for ever) it had these prelude changes and varieties.

For Lives; I do find strange that these times have so little esteemed the virtues of the times, as that the writing of lives should be no more frequent. For although there be not many sovereign princes or absolute commanders, and that states are most collected into monarchies, yet there are many worthy personages that deserve better than dispersed report, or barren eulogies. For herein the invention of one of the late poets is proper, and doth well enrich the ancient fiction; for he feigneth, that at the end of the thread or web of every man's life there was a little medal containing the person's name, and that Time waited upon the shears; and as soon as the thread was cut, caught the medals, and carried them to the river of Lethe; and about the bank there were many birds flying up and down, that would get the medals, and carry them in their beak a little while, and then let them fall into the river: only there were a few swans, which if they got a name, would carry it to a temple, where it was consecrated.

And though many men, more mortal in their affections than in their bodies, do esteem desire of name and memory but as a vanity and ventosity,

*Animi nil magnae laudis egentes;*

which opinion cometh from the root, *Non prius laudes contempsimus, quam laudanda facere desuimus*: yet that will not alter Solomon's judgment, *Memoria iusti cum laudibus, at impiorum nomen putrescet*: the one flourisheth, the other either consumeth to present oblivion, or turneth to an ill odour.

And therefore in that style or addition, which is and hath been long well received and brought in use, *felicis memoriae, pie memoriae, bonae memoriae*, we do acknowledge that which Cicero saith, borrowing it from Demosthenes, that *Bona fama propria possessio defunctorum*; which possession I cannot but note, that in our times it lieth much waste, and that therein there is a deficiency.

For Narrations and relations of particular actions, there were also to be wished a greater diligence therein; for there is no great action but hath some good pen which attends it.

And because it is an ability not common to write a good history, as may well



well appear by the small number of them; yet if particularity of actions memorable were but tolerably reported as they pass, the compiling of a complete history of times might be the better expected, when a writer should arise that were fit for it; for the collection of such relations might be as a nursery garden, whereby to plant a fair and stately garden, when time should serve.

There is yet another partition of history which Cornelius Tacitus maketh, which is not to be forgotten, especially with that application which he acquainteth it withal, Annals and Journals; appropriating to the former, matters of state; and to the latter, acts and accidents of a meaner nature. For giving but a touch of certain magnificent buildings, he addeth, *Cum ex dignitate populi Romani repertum sit, res illustres annalibus, talia diurnis urbis actis mandare*. So as there is a kind of contemplative heraldry, as well as civil. And as nothing doth derogate from the dignity of a state more than confusion of degrees: so it doth not a little enbase the authority of an history, to intermingle matters of triumph, or matters of ceremony, or matters of novelty, with matters of state. But the use of a journal hath not only been in the history of time, but likewise in the history of persons, and chiefly of actions: for princes in ancient time had, upon point of honour and policy both, journals kept, what passed day by day: for we see the chronicle which was read before Abasiernus, when he could not take rest, contained matter of affairs indeed, but such as had passed in his own time, and very lately before: but the journal of Alexander's house expressed every small particularity, even concerning his person and court; and it is yet an use well received in enterprizes memorable, as expeditions of war, navigations, and the like, to keep diaries of that which passeth continually.

I cannot likewise be ignorant of a form of writing, which some grave and wise men have used, containing a scattered history of those actions which they have thought worthy of memory, with politick discourse and observation thereupon; not incorporated into the history, but separately, and as the more principal in their intention; which kind of ruminated history I think more fit to place amongst books of policy, whereof we shall hereafter speak, than amongst books of history: for it is the true office of history to represent the events themselves together with the counsels, and to leave the observations and conclusions thereupon to the liberty and faculty of every man's judgment: but mixtures are things irregular, whereof no man can define.

So also is there another kind of history manifoldly mixed, and that is History of cosmography, being compounded of natural history, in respect of the regions themselves; of history civil, in respect of the habitations, regiments, and manners of the people; and the mathematicks, in respect of the climates and configurations towards the heavens: which part of learning of all others, in this later time, hath obtained most proficience. For it may be truly affirmed to the honour of these times, and in a virtuous emulation with antiquity, that this great building of the world had never thorough lights made in it, till the age of us and our fathers: for although they had knowledge of the antipodes,

*Nosque ubi primus quis oriens affavit anhelis,*

*Illic sera rubens accendit lumina Vesper:*

yet that might be by demonstration, and not in fact; and if by travel, it requireth the voyage but of half the globe. But to circle the earth, as the heavenly bodies do, was not done or enterprized till these later times: and therefore these times may justly bear in their word, not only *plus ultra* in precedence of the ancient *non ultra*, and *imitabile fulmen*, in precedence of the ancient *non imitabile fulmen*,

*Demens qui nimbos et non imitabile fulmen, etc.*

but likewise *imitabile coelum*: in respect of the many memorable voyages, after the manner of heaven, about the globe of the earth.

And this proficience in navigation and discoveries may plant also an expectation of the farther proficience and augmentation of all sciences; because, it may seem, they are ordained by God to be coevals, that is, to meet in one age.



For so the prophet Daniel, speaking of the latter times, foretelleth; *Plurimi pertransibunt, et multiplex erit scientia*, as if the openness and thorough passage of the world, and the increase of knowledge, were appointed to be in the same ages, as, we see, it is already performed in great part; the learning of these latter times not much giving place to the former two periods or returns of learning, the one of the Grecians, the other of the Romans.

HISTORY ecclesiastical receiveth the same divisions with history civil; but farther, in the propriety thereof, may be divided into the History of the church, by a general name; History of prophecy; and History of providence.

The first describeth the times of the militant church, whether it be fluctuant, as the ark of Noah; or moveable, as the ark in the wilderness; or at rest, as the ark in the temple; that is, the state of the church in persecution, in remove, and in peace. This part I ought in no sort to note as deficient, only I would the virtue and sincerity of it were according to the mass and quantity. But I am not now in hand with censures, but with omissions.

The second, which is History of prophecy, consisteth of two relatives, the *Historia prophetica*, and the accomplishment; and therefore the nature of such a work ought to be, that every prophecy of the Scripture be sorted with the event fulfilling the same, throughout the ages of the world; both for the better confirmation of faith, and for the better illumination of the church touching those parts of prophecies which are yet unfulfilled: allowing nevertheless that latitude which is agreeable and familiar unto divine prophecies, being of the nature of their author, with whom a thousand years are but as one day, and therefore are not fulfilled punctually at once, but have springing and germinant accomplishment throughout many ages; though the height or fullness of them may refer to some one age.

This is a work which I find deficient, but is to be done with wisdom, sobriety, and reverence, or not at all.

The third, which is History of providence, containeth that excellent correspondence which is between God's revealed will, and his secret will: which though it be so obscure, as for the most part it is not legible to the natural man; no, nor many times to those that behold it from the tabernacle: yet at some times it pleaseth God, for our better establishment, and the confuting of those which are as without God in the world, to write it in such text and capital letters, that, as the prophet saith, *be that runneth by, may read it*; that is, mere sensual persons, which hasten by God's judgments, and never bend or fix their cogitations upon them, are nevertheless in their passage and race urged to discern it. Such are the notable events and examples of God's judgments, chastisements, deliverances, and blessings: and this is a work which hath passed through the labours of many, and therefore I cannot present as omitted.

There are also other parts of learning which are Appendices to history: for all the exterior proceedings of man consist of words and deeds; whereof history doth properly receive and retain in memory the deeds; and if words, yet but as inducements and passages to deeds: so are there other books and writings, which are appropriate to the custody and receipt of words only, which likewise are of three sorts; Orations, Letters, and brief Speeches or Sayings.

Orations are pleadings, speeches of council, laudatives, invectives, apologies, reprehensions; orations of formality or ceremony, and the like.

Letters are according to all the variety of occasions, advertisements, advices, directions, propositions, petitions, commendatory, exhortatory, satisfactory; of compliment, of pleasure, of discourse, and all other passages of action. And such as are written from wise men, are of all the words of man, in my judgment, the best; for they are more natural than orations and publick speeches, and more advised than conferences or present speeches. So again letters of affairs from such as manage them, or are privy to them, are of all others the best instructions for history, and to a diligent reader the best histories in themselves.

For Apophthegms, it is a great loss of that book of Caesar's; for as his history, and those few letters of his which we have, and these apophthegms which were of  
his  
Vol. I. M



his own, excel all mens else, so I suppose would his collection of apophthegms have done; for as for those which are collected by others, either I have no taste in such matters, or else their choice hath not been happy. But upon these three kinds of writings I do not insist, because I have no deficiencies to propound concerning them.

Thus much therefore concerning history, which is that part of learning which answereth to one of the cells, domiciles, or offices of the mind of man, which is that of the memory.

POESY is a part of learning in measure of words for the most part restrained, but in all other points extremely licensed, and doth truly refer to the imagination; which, being not tied to the laws of matter, may at pleasure join that which nature hath sever'd, and sever that which nature hath joined, and so make unlawful matches and divorces of things; *Pictoribus atque poetis, etc.* It is taken in two senses, in respect of words, or matter; in the first sense, it is but a character of style, and belongeth to arts of speech, and is not pertinent for the present: in the latter, it is (as hath been said) one of the principal portions of learning, and is nothing else but feigned history, which may be styled as well in prose as in verse.

The use of this feigned history hath been to give some shadow of satisfaction to the mind of man in those points, wherein the nature of things doth deny it, the world being in proportion inferior to the soul; by reason whereof there is, agreeable to the spirit of man, a more ample greatness, a more exact goodness, and a more absolute variety, than can be found in the nature of things. Therefore, because the acts or events of true history have not that magnitude which satisfieth the mind of man, poesy feigneth acts and events greater and more heroical: because true history propoundeth the successes and issues of actions not so agreeable to the merits of virtue and vice, therefore poesy feigns them more just in retribution, and more according to revealed providence: because true history representeth actions and events more ordinary, and less interchanged; therefore poesy endueth them with more rareness, and more unexpected and alternative variations: so as it appeareth that poesy serveth and conferreth to magnanimity, morality, and to delectation. And therefore it was ever thought to have some participation of divineness, because it doth raise and erect the mind, by submitting the shews of things to the desires of the mind; whereas reason doth buckle and bow the mind unto the nature of things.

And we see, that by these insinuations and congruities with man's nature and pleasure, joined also with the agreement and comfort it hath with musick, it hath had access and estimation in rude times, and barbarous regions, where other learning stood excluded.

The division of poesy, which is aptest in the propriety thereof (besides those divisions which are common unto it with history; as feigned chronicles, feigned lives, and the appendices of history, as feigned epistles, feigned orations, and the rest) is into Poesy, Narrative, Representative, and Allusive.

The Narrative is a mere imitation of history, with the excesses before remembered, chusing for subject commonly wars and love; rarely state, and sometimes pleasure or mirth.

Representative is as a visible history, and is an image of actions as if they were present, as history is of actions in nature as they are, that is past.

Allusive or parabolical, is a narration applied only to express some special purpose or conceit: which latter kind of parabolical wisdom was much more in use in the ancient times, as by the fables of Æsop, and the brief sentences of the Seven, and the use of hieroglyphicks, may appear. And the cause was, for that it was then of necessity to express any point of reason, which was more sharp or subtle than the vulgar, in that manner, because men in those times wanted both variety of examples, and subtilty of conceit: and as hieroglyphicks were before letters, so parables were before arguments. And nevertheless now, and at all times, they



do retain much life and vigour, because reason cannot be so sensible, nor examples so fit.

But there remaineth yet another use of poesy parabolical, opposite to that which we last mentioned: for that tendeth to demonstrate and illustrate that which is taught or delivered, and this other to retire and obscure it: that is, when the secrets and mysteries of religion, policy, or philosophy, are involved in fables and parables.

Of this in divine poesy, we see, the use is authorized. In heathen poesy, we see, the exposition of fables doth fall out sometimes with great felicity, as in the fable that the giants being overthrowen in their war against the gods, the Earth their mother, in revenge thereof, brought forth Fame:

*Illam terra parens ira irritata dorum,*

*Extremam, ut peribent, Caeo Enceladogue sororem*

*Progenit.*

Expounded, that when princes and monarchies have suppressed actual and open rebels, then the malignity of people (which is the mother of rebellion) doth bring forth libels and slanders, and taxations of the states, which is of the same kind with rebellion, but more feminine. So in the fable, that the rest of the gods having conspired to bind Jupiter, Pallas called Briareus with his hundred hands to his aid: expounded, that monarchies need not fear any curbing of their absoluteness by mighty subjects, as long as by wisdom they keep the hearts of the people, who will be sure to come in on their side. So in the fable, that Achilles was brought up under Chiron the Centaur, who was part a man and part a beast, expounded ingeniously, but corruptly by Machiavel, that it belongeth to the education and discipline of princes, to know as well how to play the part of the lion in violence, and the fox in guile, as of the man in virtue and justice.

Nevertheless, in many the like encounters, I do rather think that the fable was first, and the exposition devised, than that the moral was first, and thereupon the fable framed. For I find it was an ancient vanity in Chrysippus, that troubled himself with great contention to fasten the assertions of the Stoicks upon fictions of the ancient poets: but yet that all the fables and fictions of the poets were but pleasure and not figure, I interpose no opinion.

Surely of those poets which are now extant, even Homer himself (notwithstanding he was made a kind of Scripture by the latter schools of the Grecians) yet I should without any difficulty pronounce, that his fables had no such inwardness in his own meaning; but what they might have, upon a more original tradition, is not easy to affirm, for he was not the inventor of many of them.

In this third part of learning, which is poesy, I can report no deficiency. For being as a plant that cometh of the lust of the earth, without a formal seed, it hath sprung up, and spread abroad more than any other kind: but to ascribe unto it that which is due, for the expression of affections, passions, corruptions, and customs, we are beholden to poets more than to the philosophers works; and for wit and eloquence, not much less than to orators harangues. But it is not good to stay too long in the theatre. Let us now pass on to the judicial place or palace of the mind, which we are to approach and view with more reverence and attention.

THE knowledge of man is as the waters, some descending from above, and some springing from beneath; the one informed by the light of nature, the other inspired by divine revelation.

The light of nature consisteth in the notions of the mind, and the reports of the senses; for as for knowledge which man receiveth by teaching, it is cumulative and not original, as in a water, that, besides his own spring-head, is fed with other springs and streams. So then, according to these two differing illuminations or originals, knowledge is first of all divided into Divinity and Philosophy.

In Philosophy, the contemplations of man do neither penetrate unto God, or are circumferred to nature, or are reflected or reverted upon himself. Out of



which several enquiries there do arise three knowledges, Divine philosophy, Natural philosophy, and Human philosophy or humanity. For all things are marked and stamped with this triple character, of the power of God, the difference of nature, and the use of man. But because the distributions and partitions of knowledge are not like several lines that meet in one angle, and so touch but in a point; but are like branches of a tree, that meet in a stem, which hath a dimension and quantity of entireness and continuance, before it come to discontinue and break itself into arms and boughs; therefore it is good, before we enter into the former distribution, to erect and constitute one universal science, by the name of *Philosophia prima*, primitive or summary philosophy, as the main and common way, before we come where the ways part and divide themselves; which science, whether I should report as deficient or no, I stand doubtful.

For I find a certain rhapsody of natural theology, and of divers parts of logic; and of that other part of natural philosophy, which concerneth the principles; and of that other part of natural philosophy, which concerneth the soul or spirit; all these strangely commixed and confused: but being examined, it seemeth to me rather a depredation of other sciences, advanced and exalted unto some height of terms, than any thing solid or substantive of itself.

Nevertheless I cannot be ignorant of the distinction which is current, that the same things are handled but in several respects. As for example, that logick considereth of many things as they are in notion; and this philosophy, as they are in nature; the one in appearance, the other in existence: but I find this difference better made, than pursued. For if they had considered quantity, similitude, diversity, and the rest of those extern characters of things, as philosophers, and in nature; their enquiries must of force have been of a far other kind than they are.

For doth any of them, in handling quantity, speak of the force of union, how, and how far it multiplieth virtue? Doth any give the reason, why some things in nature are so common and in so great mass, and others so rare, and in so small quantity? Doth any, in handling similitude and diversity, assign the cause why iron should not move to iron, which is more like, but move to the loadstone, which is less like? Why, in all diversities of things, there should be certain participles in nature, which are almost ambiguous, to which kind they should be referred? But there is a mere and deep silence touching the nature and operation of those common adjuncts of things, as in nature; and only a resuming and repeating of the force and use of them in speech or argument.

Therefore because in a writing of this nature I avoid all subtilty, my meaning touching this original or universal philosophy is thus, in a plain and gross description by negative; "That it be a receptacle for all such profitable observations and axioms, as fall not within the compass of any of the special parts of philosophy or sciences, but are more common and of a higher stage."

Now that there are many of that kind, need not to be doubted. For example; is not the rule, *Si inaequalibus aequalia addas, omnia erunt inaequalia*, an axiom as well of justice, as of the mathematicks? And is there not a true coincidence between commutative and distributive justice, and arithmetical and geometrical proportion? Is not that other rule, *Quae in eodem tertio conveniunt, et inter se conveniunt*, a rule taken from the mathematicks, but so potent in logic, as all syllogisms are built upon it? Is not the observation, *Omnia mutantur, nil interit*, a contemplation in philosophy thus, that the *quantum* of nature is eternal? in natural theology thus; that it requireth the same omnipotence to make somewhat nothing, which at the first made nothing somewhat; according to the scripture, *Didici quod omnia opera, quae fecit Deus, perseverent in perpetuum; non possumus eis quicquam addere, nec auferre*?

Is not the ground, which Machiavel wisely and largely discourseth concerning governments, that the way to establish and preserve them, is to reduce them *ad principia*; a rule in religion and nature, as well as in civil administration? Was not the Persian magick a reduction or correspondence of the principles and architectures of nature, to the rules and policy of governments? Is not the precept of a musician, to fall from a discord or harsh accord upon a concord or sweet accord,



accord, alike true in affection? Is not the trope of musick, to avoid or slide from the close or cadence, common with the trope of rhetoric, of deceiving expectation? Is not the delight of the quavering upon a stop in musick, the same with the playing of light upon the water?

*Plendet tremulo sub lumine pontus.*

Are not the organs of the senses of one kind with the organs of reflection, the eye with a glass, the ear with a cave or strait determined and bounded? Neither are these only similitudes, as men of narrow observation may conceive them to be, but the same footsteps of nature, treading or printing upon several subjects or matters.

This science therefore (as I understand it) I may justly report as deficient; <sup>Philosophia prima, five for I see sometimes the profounder sort of wits, in handling some particular argument, will now and then draw a bucket of water out of this well, for de fontibus scientiarum.</sup> but the spring-head thereof seemeth to me not to have been visited; being of so excellent use, both for the disclosing of nature, and the abridgment of art.

This science being therefore first placed as a common parent, like unto Berecynthia, which had so much heavenly issue, *Omnes coelestias, omnes superæ æthereas, omnes terrestres*, we may return to the former distribution of the three philosophies, divine, natural, and human.

And as concerning divine philosophy, or Natural Theology, it is that knowledge or rudiment of knowledge concerning God, which may be obtained by the contemplation of his creatures; which knowledge may be truly termed divine, in respect of the object, and natural in respect of the light.

The bounds of this knowledge are, that it sufficeth to convince atheism, but not to inform religion: and therefore there was never miracle wrought by God to convert an atheist, because the light of nature might have led him to confess a God: but miracles have been wrought to convert idolaters and the superstitious, because no light of nature extendeth to declare the will and true worship of God.

For as all works do shew forth the power and skill of the workman, and not his image, so it is of the works of God, which do shew the omnipotency and wisdom of the maker, but not his image: and therefore therein the heathen opinion differeth from the sacred truth; for they supposed the world to be the image of God, and man to be an extract or compendious image of the world: but the Scriptures never vouchsafe to attribute to the world that honour, as to be the image of God, but only the work of his hands; neither do they speak of any other image of God, but man: wherefore by the contemplation of nature, to induce and inforce the acknowledgement of God, and to demonstrate his power, providence, and goodness, is an excellent argument, and hath been excellently handled by divers.

But on the other side, out of the contemplation of nature, or ground of human knowledges, to induce any verity or persuasion concerning the points of faith, is in my judgment not safe: *Da fidei, quæ fidei sunt.* For the heathen themselves conclude as much in that excellent and divine fable of the golden chain; "That men and gods were not able to draw Jupiter down to the earth; but, contrariwise, Jupiter was able to draw them up to heaven."

So as we ought not to attempt to draw down, or submit the mysteries of God to our reason; but, contrariwise, to raise and advance our reason to the divine truth. So as in this part of knowledge, touching divine philosophy, I am so far from noting any deficiency, as I rather note an excess; whereunto I have digressed, because of the extreme prejudice which both religion and philosophy hath received, and may receive, by being commixed together; as that which undoubtedly will make an heretical religion, and an imaginary and fabulous philosophy.

Otherwise it is of the nature of angels and spirits, which is an appendix of theology, both divine and natural, and is neither inscrutable nor interdicted: for although the Scripture saith, *Let no man deceive you in sublime discourse touching the worship of angels, pressing into that he knoweth not*, etc. yet, notwithstanding,



withstanding, if you observe well that precept, it may appear thereby that there be two things only forbidden, adoration of them, and opinion fantastical of them, either to extol them farther, than appertaineth to the degree of a creature, or to extol a man's knowledge of them farther, than he hath ground. But the sober and grounded enquiry, which may arise out of the passages of Holy Scriptures, or out of the gradations of nature, is not restrained. So of degenerate and revolted spirits, the converting with them, or the employment of them is prohibited, much more any veneration towards them. But the contemplation or science of their nature, their power, their illusions, either by Scripture or reason, is a part of spiritual wisdom. For so the apostle saith, *We are not ignorant of his stratagems*. And it is no more unlawful to enquire the nature of evil spirits, than to enquire the force of poisons in nature, or the nature of sin and vice in morality. But this part, touching angels and spirits, I cannot note as deficient, for many have occupied themselves in it: I may rather challenge it, in many of the writers thereof, as fabulous and fantastical.

LEAVING therefore divine philosophy or natural theology (not divinity, or inspired theology, which we reserve for the last of all, as the haven and habitation of all man's contemplations) we will now proceed to Natural Philosophy.

If then it be true that Democritus said, "That the truth of nature lieth hid in certain deep mines and caves:" and if it be true likewise that the alchemists do so much inculcate, that Vulcan is a second nature, and imitateth that dexterously and compendiously, which nature worketh by ambages, and length of time; it were good to divide natural philosophy into the mine and the furnace, and to make two professions or occupations of natural philosophers, some to be pioneers, and some smiths; some to dig, and some to refine and hammer: and surely I do best allow of a division of that kind, though in more familiar and scholastical terms: namely, that these be the two parts of natural philosophy, the inquisition of causes, and the production of effects; speculative, and operative; natural science, and natural prudence.

For as in civil matters there is a wisdom of discourse, and a wisdom of direction; so is it in natural. And here I will make a request, that for the latter (or at least for a part thereof) I may revive and reintegrate the misapplied and abused name of natural magick, which, in the true sense, is but natural wisdom, or natural prudence; taken according to the ancient acception, purged from vanity and superstition.

Now although it be true, and I know it well, that there is an intercourse between causes and effects, so as both these knowledges, speculative and operative, have a great connection between themselves; yet because all true and fruitful natural philosophy hath a double scale or ladder, ascendent and descendent; ascending from experiments, to the invention of causes; and descending from causes, to the invention of new experiments; therefore I judge it most requisite that these two parts be severally considered and handled.

Natural science, or theory, is divided into Physick, and Metaphysick; wherein I desire it may be conceived, that I use the word metaphysick in a differing sense from that, that is received: and, in like manner, I doubt not but it will easily appear to men of judgment, that in this and other particulars, whatsoever my conception and notion may differ from the ancient, yet I am studious to keep the ancient terms.

For hoping well to deliver myself from mistaking, by the order and perspicuous expressing of that I do propound; I am otherwise zealous and affectionate to recede as little from antiquity, either in terms or opinions, as may stand with truth, and the proficience of knowledge.

And herein I cannot a little marvel at the philosopher Aristotle, that did proceeded in such a spirit of difference and contradiction towards all antiquity, undertaking not only to frame new words of science at pleasure, but to confound and extinguish all ancient wisdom: inso much as he never nameth or mentioneth an ancient author or opinion, but to confute and reprove; wherein for glory, and drawing followers and disciples, he took the right course.

For



## Book II.

For certainly there cometh to pals, and hath place in human truth, that which was noted and pronounced in the highest truth; *Veni in nomine Patris, nec recipitis me; si quis venerit in nomine suo, eum recipietis*. But in this divine aphorism (considering to whom it was applied, namely to Antichrist, the highest deceiver) we may discern well, that the coming in a man's own name, without regard of antiquity or paternity, is no good sign of truth, although it be joined with the fortune and success of an *Eum recipietis*.

But for this excellent person, Aristotle, I will think of him, that he learned that humour of his scholar, with whom, it seemeth, he did emulate, the one to conquer all opinions, as the other to conquer all nations: wherein nevertheless, it may be, he may at some mens hands, that are of a bitter disposition, get a like title as his scholar did.

*Felix terrarum praedo, non utile mundo  
Editus exemplum, etc.*

So

*Felix doctrinae praedo.*

But to me, on the other side, that do desire as much, as lieth in my pen, to ground a sociable intercourte between antiquity and proficience, it seemeth best to keep way with antiquity *usque ad aras*; and therefore to retain the ancient terms, though I sometimes alter the uses and definitions; according to the moderate proceeding in civil government, where, although there be some alteration, yet that holdeth which Tacitus wisely noteth, *eadem magistratum vocabula*.

To return therefore to the use and acception of the term metaphysick, as I do now understand the word; it appeareth, by that which hath been already said, that I intend *philosophia prima*, summary philosophy, and metaphysick, which heretofore have been confounded as one, to be two distinct things. For, the one I have made as a parent, or common ancestor, to all knowledge; and the other I have now brought in, as a branch, or descendent, of natural science. It appeareth likewise that I have assigned to summary philosophy, the common principles and axioms which are promiscuous and indifferent to several sciences: I have assigned unto it likewise the enquiry touching the operation of the relative and adventive characters of essences, as quantity, similitude, diversity, possibility, and the rest; with this distinction and provision; that they be handled as they have efficacy in nature, and not logically. It appeareth likewise, that natural theology, which heretofore hath been handled confusedly with metaphysick, I have inclosed and bounded by itself.

It is therefore now a question, what is left remaining for metaphysick; wherein I may without prejudice preserve thus much of the conceit of antiquity, that physick should contemplate that which is inherent in matter, and therefore transitory; and metaphysick, that which is abstracted and fixed.

And again, that physick should handle that which supposeth in nature only a being and moving; and metaphysick should handle that which supposeth farther in nature, a reason, understanding, and platform. But the difference perspicuously expressed, is most familiar and sensible:

For as we divided natural philosophy in general into the enquiry of causes, and productions of effects; so that part, which concerneth the enquiry of causes, we do subdivide according to the received and sound division of causes; the one part, which is physick, enquireth and handleth the material and efficient causes; and the other, which is metaphysick, handleth the formal and final causes.

Physick (taking it according to the derivation, and not according to our idiom for medicine) is situate in a middle term, or distance, between natural history and metaphysick. For natural history describeth the variety of things, physick the causes, but variable or respective causes; and metaphysick, the fixed and constant causes.

*Limus ut hic durefcit, et haec ut cera liquefcit,  
Vno eodemque igne.*

Fire is the cause of induration but respective to clay: fire is the cause of colligation but respective to wax. But fire is no constant cause either of induration



tion or colligation: so then the physical causes are but the efficient and the matter.

Physick hath three parts, whereof two respect nature united or collected, the third contemplateth nature diffused or distributed.

Nature is collected either into one entire total, or else into the same principles or seeds. So as the first doctrine is touching the texture or configuration of things, as *de mundo, de universitate rerum*.

The second is the doctrine concerning the principles or originals of things.

The third is the doctrine concerning all variety and particularity of things; whether it be of the differing substances, or their differing qualities and natures: whereof there needeth no enumeration, this part being but as a gloss, or phrase, that attendeth upon the text of natural history.

Of these three I cannot report any as deficient. In what truth or perfection they are handled, I make not now any judgment: but they are parts of knowledge not deserted by the labour of man.

For Metaphysick, we have assigned unto it the enquiry of formal and final causes; which assignation, as to the former of them, may seem to be nugatory and void, because of the received and inveterate opinion, that the inquisition of man is not competent to find out essential forms, or true differences: of which opinion we will take this hold, that the invention of forms is of all other parts of knowledge the worthiest to be sought, if it be possible to be found.

As for the possibility, they are ill discoverers that think there is no land, when they can see nothing but sea.

But it is manifest, that Plato, in his opinion of ideas, as one that had a wit of elevation situate as upon a cliff, did descry, "That forms were the true object of knowledge;" but lost the real fruit of his opinion, by considering of forms as absolutely abstracted from matter, and not confined and determined by matter; and so turning his opinion upon theology, wherewith all his natural philosophy is infected.

But if any man shall keep a continual watchful and severe eye upon action, operation, and the use of knowledge, he may advise and take notice what are the forms, the disclosures whereof are fruitful and important to the state of man. For as to the forms of substances (man only except, of whom it is said, *Formavit dominum de limo terrae, et spiravit in faciem ejus spiraculum vitae*, and not as of all other creatures, *Producant aquae, producat terra*) the forms of substances, I say, (as they are now by compounding and transplanting multiplied) are so perplexed, as they are not to be enquired; no more than it were either possible or to purpose, to seek in gross the forms of those sounds which make words, which by composition and transposition of letters are infinite.

But, on the other side, to enquire the form of those sounds or voices, which make simple letters, is easily comprehensible; and being known, induceth and manifesteth the forms of all words, which consist and are compounded of them. In the same manner to enquire the form of a lion, of an oak, of gold; nay, of water, of air, is a vain pursuit: but to enquire the forms of sense, of voluntary motion, of vegetation, of colours, of gravity and levity, of density, of tenuity, of heat, of cold, and all other natures and qualities, which, like an alphabet, are not many, and of which the essences (upheld by matter) of all creatures do consist: to enquire, I say, the true forms of these, is that part of metaphysick which we now define of.

Not but that physick doth make enquiry, and take consideration of the same natures: but how? Only as to the material and efficient causes of them, and not as to the forms. For example; if the cause of whiteness in snow or froth be enquired, and it be render'd thus; that the subtile intermixture of air and water is the cause, it is well render'd; but nevertheless, is this the form of whiteness? No; but it is the efficient, which is ever but *vehiculum formae*.

Metaphysica, five de formis et finibus rerum. This part of metaphysick I do not find laboured and performed, whereat I marvel not: because I hold it not possible to be invented by that course of invention which hath been used, in regard that men (which is the root of all error) have made too untimely a departure, and too remote a recess from particulars.

But



But the use of this part of metaphysick which I report as deficient, is of the rest the most excellent in two respects: the one, because it is the duty and virtue of all knowledge to abridge the infinity of individual experience, as much as the conception of truth will permit, and to remedy the complaint of *vita brevis, ars longa*; which is performed by uniting the notions and conceptions of sciences: for knowledges are as pyramids, whereof history is the basis. So of natural philosophy, the basis is natural history; the stage next the basis is physick; the stage next the vertical point is metaphysick. As for the vertical point, *Opus, quod operatur Deus a principio usque ad finem*, the summary law of nature, we know not whether man's enquiry can attain unto it. But these three be the true stages of knowledge, and are to them that are depraved, no better than the giants hills.

*Per sunt conati imponere Pelio Ossan*

*Sciñcet, atque Ossae frondosum involvere Olympum.*

But to those which refer all things to the glory of God, they are as the three acclamations; *Sancte, sancte, sancte*; holy in the description, or dilatation of his works; holy in the connection, or concatenation of them; and holy in the union of them in a perpetual and uniform law.

And therefore the speculation was excellent in Parmenides and Plato, although but a speculation in them, that all things by scale did ascend to unity. So then always that knowledge is worthiest, which is charged with least multiplicity; which appeareth to be metaphysick, as that which considereth the simple forms or differences of things, which are few in number, and the degrees and co-ordinations whereof make all this variety.

The second respect which valueth and commendeth this part of metaphysick, is, that it doth enfranchise the power of man unto the greatest liberty and possibility of works and effects. For physick carrieth men in narrow and restrained ways, subject to many accidents of impediments, imitating the ordinary flexuous courses of nature; but *latae undique sunt sapientibus viae*: to sapience (which was anciently defined to be *rerum divinarum et humanarum scientia*) there is ever choice of means: for physical causes give light to new invention in *simili materia*. But whosoever knoweth any form, knoweth the utmost possibility of super-inducing that nature upon any variety of matter, and so is less restrained in operation, either to the basis of the matter, or the condition of the efficient: which kind of knowledge Solomon likewise, though in a more divine sense, elegantly describeth; *Non arctabuntur gressus tui, et currens non habebis offendiculum*. The of sapience are not much liable either to particularity or chance.

The second part of metaphysick is the enquiry of final causes, which I am moved to report, not as omitted, but as misplaced; and yet if it were but a fault in order, I would not speak of it: for order is matter of illustration, but pertaineth not to the substance of sciences. But this misplacing hath caused a deficiency, or at least a great improficiency in the sciences themselves. For the handling of final causes, mixed with the rest in physical enquiries, hath intercepted the severe and diligent inquiry of all real and physical causes, and given men the occasion to stay upon these satisfactory and specious causes, to the great arrest and prejudice of farther discovery.

For this I find done not only by Plato, who ever anchoreth upon that shore, but by Aristotle, Galen, and others, which do usually likewise fall upon these flats of discoursing causes. For to say that the hairs of the eyelids are for a quickset and fence about the sight; or, that the firmness of the skins and hides of living creatures is to defend them from the extremities of heat or cold; or, that the bones are for the columns or beams, whereupon the frame of the bodies of living creatures are built; or, that the leaves of trees are for protecting of the fruit; or, that the clouds are for watering of the earth; or, that the solidity of the earth is for the station and mansion of living creatures, and the like, is well enquired and collected in metaphysick; but in physick they are impertinent. Nay, they are indeed but remora's and hinderances to stay and slug the ship from farther sailing, and have brought this to pass, that the search of the physical causes hath been neglected, and passed in silence.



And therefore the natural philosophy of Democritus, and some others, who did not suppose a mind or reason in the frame of things, but attributed the form thereof, able to maintain itself, to infinite essays or proofs of nature, which they term fortune: seemeth to me (as far as I can judge by the rectal and fragments which remain unto us) in particularities of physical causes, more real and better enquired, than that of Aristotle and Plato; whereof both intermingled final causes, the one as a part of theology, and the other as a part of logick, which were the favourite studies respectively of both those persons. Not because those final causes are not true, and worthy to be enquired, being kept within their own province; but because their excursions into the limits of physical causes hath bred a vastness and solitude in that track. For, otherwise, keeping their precincts and borders, men are extremely deceived if they think there is an enmity or repugnancy at all between them. For, the cause render'd, that the hairs about the eye-lids are for the safe-guard of the sight, doth not impugn the cause render'd, that pilosity is incident to orifices of moisture; *Muscoli fontes, etc.* Nor the cause render'd, that the firmness of hides is for the armour of the body against extremities of heat or cold, doth not impugn the cause render'd, that contraction of pores is incident to the outwardest parts, in regard of their adjacence to foreign or unlike bodies; and so of the rest: both causes being true and compatible, the one declaring an intention, the other a consequence only.

Neither doth this call in question, or derogate from divine providence, but highly confirm and exalt it. For as in civil actions he is the greater and deeper politician, that can make other men the instruments of his will and ends, and yet never acquaint them with his purpose, so as they shall do it, and yet not know what they do; than he that imparteth his meaning to those he employeth: so is the wisdom of God more admirable, when nature intendeth one thing, and providence draweth forth another; than if he had communicated to particular creatures, and motions, the characters and impressions of his providence. And thus much for metaphysick; the latter part whereof I allow as extant, but with it confined to its proper place.

Nevertheless there remaineth yet another part of natural philosophy, which is commonly made a principal part, and holdeth rank with physick special, and metaphysick, which is Mathematick; but I think it more agreeable to the nature of things, and to the light of order, to place it as a branch of metaphysick: for the subject of it being quantity, not quantity indefinite, which is but a relative, and belongeth to *philosophia prima* (as hath been said) but quantity determined, or proportionable; it appeareth to be one of the essential forms of things; as that, that is causative in nature of a number of effects, inasmuch as we see, in the schools both of Democritus and of Pythagoras, that the one did ascribe Figure to the first seeds of things, and the other did suppose Numbers to be the principles and originals of things: and it is true also, that of all other forms (as we understand forms) it is the most abstracted and separable from matter, and therefore most proper to metaphysick; which hath likewise been the cause, why it hath been better laboured and enquired, than any of the other forms, which are more immersed into matter.

For it being the nature of the mind of man (to the extreme prejudice of knowledge) to delight in the spacious liberty of generalities, as in a champion region, and not in the inclosures of particularity; the mathematicks of all other knowledge were the goodliest fields to satisfy that appetite.

But for the placing of these sciences, it is not much material; only we have endeavoured, in these our partitions, to observe a kind of perspective, that one part may cast light upon another.

The Mathematicks are either pure or mixed. To the pure mathematicks are those sciences belonging which handle quantity determinate, merely severed from any axioms of natural philosophy; and these are two, Geometry, and Arithmetick; the one handling quantity continued, and the other dis severed.

Mixed hath for subject some axioms or parts of natural philosophy, and consisteth quantity determined, as it is auxiliary and incident unto them.

For



For many parts of nature can neither be invented with sufficient subtilty, nor demonstrated with sufficient perspicuity, nor accommodated unto use with sufficient dexterity, without the aid and intervening of the mathematicks: of which sort are perspective, musick, astronomy, cosmography, architecture, enginery, and divers others.

In the mathematicks I can report no deficiency, except it be that men do not sufficiently understand the excellent use of the pure mathematicks, in that they do remedy and cure many defects in the wit and faculties intellectual. For, if the wit be too dull, they sharpen it; if too wandering, they fix it; if too inherent in the sense, they abstract it. So that as tennis is a game of no use in itself, but of great use in respect it maketh a quick eye, and a body ready to put itself into all postures; so in the mathematicks, that use which is collateral and intervenient, is no less worthy than that which is principal and intended.

And as for the mixed mathematicks, I may only make this prediction, that there cannot fail to be more kinds of them, as nature grows farther disclosed.

Thus much of natural science, or the part of nature speculative.

For Natural Prudence, or the part operative of natural philosophy, we will divide it into three parts, experimental, philosophical, and magical; which three parts active have a correspondence and analogy with the three parts speculative, natural history, physick, and metaphysick: for many operations have been invented, sometimes by a casual incidence and occurrence, sometimes by a purposed experiment: and of those which have been found by an intentional experiment, some have been found out by varying, or extending the same experiment, some by transferring and compounding divers experiments the one into the other, which kind of invention an empirick may manage.

Again, by the knowledge of physical causes, there cannot fail to follow many indications and designations of new particulars, if men in their speculation will keep one eye upon use and practice. But these are but coastings along the shore, *premedo littus iniquum*: for, it seemeth to me, there can hardly be discovered any radical or fundamental alterations and innovations in nature, either by the fortune and essays of experiments, or by the light and direction of physical causes.

If therefore we have reported metaphysick deficient, it must follow, that we do the like of natural magick, which hath relation therunto. For as for the natural magick whereof now there is mention in books, containing certain credulous and superstitious conceits and observations of sympathies, and antipathies, and hidden properties, and some frivolous experiments, strange rather by disguisement, than in themselves: it is as far differing in truth of nature from such a knowledge as we require, as the story of king Arthur of Britain, or Hugh of Burdeaux, differs from Caesar's commentaries in truth of story. For it is manifest that Caesar did greater things *de vero*, than those imaginary heroes were feigned to do; but he did them not in that fabulous manner. Of this kind of learning the fable of Ixion was a figure, who designed to enjoy Juno, the goddess of power; and instead of her had copulation with a cloud, of which mixture were begotten centaurs and chimeras.

So whosoever shall entertain high and vaporous imaginations, instead of a laborious and sober inquiry of truth, shall beget hopes and beliefs of strange and impossible shapes. And therefore we may note in these sciences, which hold so much of imagination and belief, as this degenerate natural magick, alchemy, astrology, and the like, that, in their propositions, the description of the means is ever more monstrous, than the pretence, or end.

For it is a thing more probable, that he that knoweth well the natures of weight, of colour, of pliant, and fragile in respect of the hammer, of volatile and fixed in respect of the fire, and the rest, may superinduce upon some metal the nature and form of gold by such mechanicque as longeth to the production of the natures afore rehearsed, than that some grains of the medicine projected, should in a few moments of time turn a sea of quicksilver, or other material, into gold: so it is more probable, that he, that knoweth the nature of aresaction, the nature of assimilation, of nourishment to the thing nourished, the manner of increase and  
clearing



clearing of spirits, the manner of the depredations which spirits make upon the humours and solid parts; shall, by ambages of diets, bathings, anointings, medicines, motions, and the like, prolong life, or restore some degree of youth or vivacity, than that it can be done with the use of a few drops, or scruples of a liquor or receipt. To conclude therefore, the true natural magick, which is that great liberty and latitude of operation, which dependeth upon the knowledge of forms, I may report deficient, as the relative thereof is; to which part, if we be serious, and incline not to vanities and plausible discourse, besides the deriving and deducing the operations themselves from metaphysick, there are pertinent two points of much purpose, the one by way of preparation, the other by way of caution: the first is, that there be made a kalendar resembling an inventory of the estate of man, containing all the inventions (being the works or fruits of nature or art) which are now extant, and whereof man is already possessed, out of which doth naturally result a note, what things are yet held impossible or not invented: which kalendar will be the more artificial and serviceable, if to every reputed impossibility you add what thing is extant, which cometh the nearest in degree to that impossibility; to the end, that by these optatives and potentials man's inquiry may be the more awake in deducing direction of works from the speculation of causes: and secondly, that those experiments be not only esteemed which have an immediate and present use, but those principally which are of most universal consequence for invention of other experiments, and those which give most light to the invention of causes; for the invention of the mariners needle, which giveth the direction, is of no less benefit for navigation, than the invention of the sails, which give the motion.

Thus have I passed through natural philosophy, and the deficiencies thereof, wherein if I have differed from the antient and received doctrines, and thereby shall move contradiction; for my part, as I affect not to dissent, so I purpose not to contend. If it be truth,

*Non canimus surdis, respondent omnia sylvæ:*

The voice of nature will consent, whether the voice of man do or no. And as Alexander Borgia was wont to say of the expedition of the French for Naples, that they came with chalk in their hands to mark up their lodgings, and not with weapons to fight: so I like better that entry of truth, which cometh peaceably with chalk to mark up those minds which are capable to lodge and harbour it, than that which cometh with pugnacity and contention.

But there remaineth a division of natural philosophy according to the report of the inquiry, and nothing concerning the matter or subject; and that is positive and considerative; when the inquiry reporteth either an assertion, or a doubt. These doubts, or *non liquets*, are of two sorts, particular, and total. For the first, we see a good example thereof in Aristotle's *Problems*, which deserved to have had a better continuance; but so, nevertheless, as there is one point whereof warning is to be given and taken. The registering of doubts hath two excellent uses: The one, that it saveth philosophy from errors and falsehoods, when that which is not fully appearing, is not collected into assertion, whereby error might draw error, but reserved in doubt. The other, that the entry of doubts are as so many suckers or sponges to draw use of knowledge; inasmuch, as that which, if doubts had not preceded, a man should never have advised, but passed it over without note, by the suggestion and solicitation of doubts is made to be attended and applied. But both these commodities do scarcely countervail an inconvenience which will intrude itself, if it be not debarred; which is, that, when a doubt is once received, men labour rather how to keep it a doubt still, than how to solve it, and accordingly bend their wits. Of this we see the familiar example in lawyers and scholars, both which, if they have once admitted a doubt, it goeth ever after authorized for a doubt. But that use of wit and knowledge is to be allowed, which laboureth to make doubtful things certain, and not those which labour to make certain things doubtful. Therefore these kalendars of doubts I commend as excellent things, so that there be this caution used, that when they be thoroughly sifted and brought to resolution, they be from thenceforth omitted, discarded, and not continued to

*Continuatio Problematum in natura.*

cherish



## Book II.

cherish and encourage men in doubting. To which kalendar of doubts or Catalogus problems, I advise to be annexed another kalendar, as much or more material, which is a kalendar of popular errors, I mean chiefly in natural history, <sup>salutarum</sup> such as pass in speech and conceit, and are nevertheless apparently detected and <sup>graffiantium</sup> convicted of untruth, that man's knowledge be not weakened nor imbalanced by <sup>um in his-  
toria natu-  
rac.</sup> such dross and vanity.

As for the doubts or *non liquets* general or in total, I understand those differences of opinions touching the principles of nature, and the fundamental points of the same, which have caused the diversity of sects, schools, and philosophies, as that of Empedocles, Pythagoras, Democritus, Parmenides, and the rest. For although Aristotle, as though he had been of the race of the Ottomans, thought he could not reign, except the first thing he did he killed all his brethren; yet to those that seek truth and not magistrality, it cannot but seem a matter of great profit, to see before them the several opinions touching the foundations of nature: not for any exact truth that can be expected in those theories; for as the same *phenomena* in astronomy are satisfied by the received astronomy of the diurnal motion, and the proper motions of the planets, with their eccentricicks, and epicycles; and likewise by the theory of Copernicus, who supposed the earth to move, and the calculations are indifferently agreeable to both: so the ordinary face and view of experience is many times satisfied by several theories and philosophies; whereas to find the real truth requireth another manner of severity and attention. For, as Aristotle saith, that children at the first will call every woman mother, but afterward they come to distinguish according to truth: so experience, if it be in childhood, will call every philosophy mother, but when it cometh to ripeness, it will discern the true mother: so as in the mean time it is good to see the several glosses and opinions upon nature, whereof it may be every one in some one point hath seen clearer than his fellows; therefore I with some collection to be made painfully and understandingly *de antiquis philosophiis*, out of all the possible light which remaineth to us of them: which kind of work I find deficient. But here I must give warning, <sup>De anti-  
quis phi-  
losophiis.</sup> that it be done distinctly and severally, the philosophies of every one throughout by themselves, and not by titles packed and fagotted up together, as hath been done by Plutarch. For it is the harmony of a philosophy in itself, which giveth it light and credence; whereas if it be singled and broken, it will seem more foreign and dissonant. For as when I read in Tacitus the actions of Nero or Claudius, with circumstances of times, inducements and occasions, I find them not so strange; but when I read them in Suetonius Tranquillus, gathered into titles and bundles, and not in order of time, they seem more monstrous and incredible; so is it of any philosophy reported entire, and dismembred by articles. Neither do I exclude opinions of latter times to be likewise represented in this kalendar of sects of philosophy, as that of Theophrastus Paracelsus, eloquently reduced into an harmony by the pen of Severinus the Dane, and that of Tilius, and his scholar Donius, being as a pastoral philosophy, full of sense, but of no great depth: and that of Fracastorius, who though he pretended not to make any new philosophy, yet did use the absoluteness of his own sense upon the old: and that of Gilbertus, our countryman, who revived, with some alterations and demonstrations, the opinions of Xenophanes: and any other worthy to be admitted.

Thus have we now dealt with two of the three beams of man's knowledge, that is, *Radius directus*, which is referred to nature; *Radius refractus*, which is referred to God, and cannot report truly because of the inequality of the medium; there resteth *Radius reflexus*, whereby man beholdeth and contemplateth himself.

WE come therefore now to that knowledge whereunto the ancient oracle directeth us, which is the knowledge of ourselves; which deserveth the more accurate handling, by how much it toucheth us more nearly. This knowledge, as it is the end and term of natural philosophy in the intention of man, so, notwithstanding, it is but a portion of natural philosophy in the continent of nature; and generally let this be a rule, that all partitions of knowledges be accepted



rather for lines and veins, than for sections and separations; and that the continuance and entrenchment of knowledge be preserved. For the contrary hereof hath made particular sciences to become barren, shallow, and erroneous, while they have not been nourished and maintained from the common fountain. So we see Cicero the orator complained of Socrates and his school, that he was the first that separated philosophy and rhetoric, whereupon rhetoric became an empty and verbal art. So we may see, that the opinion of Copernicus touching the rotation of the earth, which astronomy itself cannot correct, because it is not repugnant to any of the *phenomena*, yet natural philosophy may correct. So we see also that the science of medicine, if it be destitute and forsaken by natural philosophy, it is not much better than an empirical practice.

With this reservation therefore we proceed to Human Philosophy or humanity, which hath two parts: The one considereth man segregated or distributively; the other congregate or in society. So as human philosophy is either simple and particular, or conjugate and civil. Humanity particular consisteth of the same parts whereof man consisteth, that is, of knowledges which respect the body, and of knowledges that respect the mind; but before we distribute so far, it is good to constitute. For I do take the consideration in general, and at large, of human nature to be fit to be emancipated and made a knowledge by itself; not so much in regard of those delightful and elegant discourses which have been made of the dignity of man, of his miseries, of his state and life, and the like adjuncts of his common and undivided nature; but chiefly in regard of the knowledge concerning the sympathies and concordances between the mind and body, which being mixed, cannot be properly assigned to the sciences of either.

This knowledge hath two branches: for as all leagues and amities consist of mutual intelligence and mutual offices, so this league of mind and body hath these two parts, how the one discloseth the other, and how the one worketh upon the other; Discovery, and Impression.

The former of these hath begotten two arts, both of prediction or prenotation, whereof the one is honoured with the inquiry of Aristotle, and the other of Hippocrates. And although they have of later time been used to be coupled with superstitious and fantastical arts, yet being purged and restored to their true state, they have both of them a solid ground in nature, and a profitable use in life. The first is physiognomy, which discovereth the disposition of the mind by the lineaments of the body. The second is the exposition of natural dreams, which discovereth the state of the body by the imaginations of the mind. In the former of these I note a deficiency, for Aristotle hath very ingeniously and diligently handled the fractures of the body, but not the gestures of the body, which are no less comprehensible by art, and of greater use and advantage. For the lineaments of the body do disclose the disposition and inclination of the mind in general; but the motions of the countenance and parts do not only so, but do farther disclose the present humour and state of the mind and will. For, as your majesty saith most aptly and elegantly, "As the tongue speaketh to the ear, so the gesture speaketh to the eye." And therefore a number of subtle persons, whose eyes do dwell upon the faces and fashions of men, do well know the advantage of this observation, as being most part of their ability; neither can it be denied, but that it is a great discovery of dissimulations, and a great direction in business.

The latter branch, touching impression, hath not been collected into art, but hath been handled dispersedly; and it hath the same relation or antistrophe that the former hath. For the consideration is double; "Either how, and how far the humours and effects of the body do alter or work upon the mind;" or again, "How, and how far the passions or apprehensions of the mind do alter or work upon the body." The former of these hath been inquired and considered, as a part and appendix of medicine, but much more as a part of religion or superstition: for the physician prescribeth cures of the mind in frenzies and melancholy passions, and pretendeth also to exhibit medicines to exhilarate the mind, to confirm the courage, to clarify the wits, to corroborate the memory, and the like:

Pars physiognomiae, de gestu five motu corporis.



like: but the scruples and superstitions of diet, and other regiment of the body, in the sect of the Pythagoreans, in the heresy of the Manicheans, and in the law of Mahomet, do exceed: So likewise the ordinances in the ceremonial law, interdicting the eating of the blood and the fat, distinguishing between beasts clean and unclean for meat, are many and strict. May the faith itself, being clear and serene from all clouds of ceremony, yet retaineth the use of fastings, abstinencies, and other macerations and humiliations of the body, as things real and not figurative. The root and life of all which precepts is (besides the ceremony) the consideration of that dependency, which the affections of the mind are submitted unto upon the state and disposition of the body. And if any man of weak judgment do conceive, that this suffering of the mind from the body, doth either question the immortality, or derogate from the sovereignty of the soul, he may be taught in easy instances, that the infant in the mother's womb is compatible with the mother, and yet separable: and the most absolute monarch is sometimes led by his servants, and yet without subjection. As for the reciprocal knowledge, which is the operation of the conceits and passions of the mind upon the body; we see all wise physicians, in the prescriptions of their regiments to their patients, do ever consider *accidentia animi*, as of great force to further or hinder remedies, or recoveries; and more especially it is an enquiry of great depth and worth concerning imagination, how, and how far it altereth the body proper of the imaginant. For although it hath a manifest power to hurt, it followeth not, it hath the same degree of power to help; no more than a man can conclude, that because there be pestilent airs, able suddenly to kill a man in health, therefore there should be sovereign airs, able suddenly to cure a man in sickness. But the inquisition of this part is of great use, though it needeth, as Socrates said, "a Delian diver," being difficult and profound. But unto all this knowledge *de communi vinculo*, of the concordances between the mind and the body, that part of inquiry is most necessary, which considereth of the seats and domiciles, which the several faculties of the mind do take and occupy in the organs of the body; which knowledge hath been attempted, and is controverted, and deserveth to be much better inquired. For the opinion of Plato, who placed the understanding in the brain, animosity (which he did unjustly call anger, having a greater mixture with pride) in the heart, and concupiscence or sensuality in the liver, deserveth not to be despised, but much less to be allowed. So then we have constituted (as in our own wish and advice) the inquiry touching human nature entire, as a just portion of knowledge to be handled apart.

The knowledge that concerneth man's Body, is divided as the good of man's body is divided, unto which it referreth. The good of man's body is of four kinds, health, beauty, strength, and pleasure: So the knowledges are medicine, or art of cure; art of decoration, which is called cosmetics; art of activity, which is called athletic; and art voluptuary, which Tacitus truly calleth *eruditus luxus*. This subject of man's body is of all other things in nature most susceptible of remedy; but then that remedy is most susceptible of error. For the same subtilty of the subject doth cause large possibility, and easy failing; and therefore the inquiry ought to be the more exact.

To speak therefore of medicine, and to resume that we have said, ascending a little higher; the ancient opinion that man was *microcosmus*, an abstract or model of the world, hath been fantastically strained by Paracelsus and the alchemists, as if there were to be found in man's body certain correspondences and parallels, which should have respect to all varieties of things, as stars, planets, minerals, which are extant in the great world. But thus much is evidently true, that of all substances, which nature hath produced, man's body is the most extremely compounded: For we see herbs and plants are nourished by earth and water; beasts for the most part by herbs and fruits; man by the flesh of beasts, birds, fishes, herbs, grains, fruits, water, and the manifold alterations, dressings, and preparations of these several bodies, before they come to be his food and aliment. Add herunto, that beasts have a more simple order of life, and less change of affections to work upon their bodies; whereas man, in his mansion, sleep, exercise, passions, hath infinite variations; and it cannot be denied, but that the body of man of all other things is of the most compounded mass. The soul on the other side is the simplest of substances, as is well expressed:



*Purumque reliquit  
Aethereum sensum, atque aurai simplicis ignem.*

So that it is no marvel though the soul so placed enjoy no rest, if that principle be true, that *Motus rerum est rapidus extra locum, placidus in loco*. But to the purpose: this variable composition of man's body hath made it as an instrument easy to dissemper, and therefore the poets did well to conjoin musick and medicine in Apollo, because the office of medicine is but to tune this curious harp of man's body, and to reduce it to harmony. So then the subject being so variable, hath made the art by consequence more conjectural; and the art being conjectural, hath made so much the more place to be left for imposture. For almost all other arts and sciences are judged by acts or master-pieces, as I may term them, and not by the successes and events. The lawyer is judged by the virtue of his pleading, and not by the issue of the cause. The master of the ship is judged by the directing his course aright, and not by the fortune of the voyage. But the physician, and perhaps the politician, hath no particular acts demonstrative of his ability, but is judged most by the event; which is ever but as it is taken: for who can tell, if a patient die or recover, or if a state be preserved, or ruined, whether it be art or accident? And therefore many times the impostor is prized, and the man of virtue taxed. Nay, we see the weakness and credulity of men is such, as they will often prefer a mountebank or witch before a learned physician. And therefore the poets were clear-sighted in discerning this extreme folly, when they made Æsculapius and Circe brother and sister, both children of the sun, as in the verses; *Æn. vii. 772.*

*Ipse repertorem medicinae talis et artis  
Fulmine Phœbigenam Stygias detruxit ad undas :*

And again,

*Dives inaccessos ubi Solis flua lucos, etc. Æn. vii. 11.*

For in all times, in the opinion of the multitude, witches, and old women, and impostors, have had a competition with physicians. And what followeth? Even this, that physicians say to themselves, as Solomon expresseth it upon an higher occasion; *If it befall to me, as befalleth to the fools, why should I labour to be more wise?* And therefore I cannot much blame physicians, that they use commonly to intend some other art or practice, which they fancy, more than their profession. For you shall have of them, antiquaries, poets, humanists, statesmen, merchants, divines, and in every of these better seen than in their profession; and no doubt, upon this ground, that they find that mediocrity and excellency in their art maketh no difference in profit or reputation towards their fortune; for the weakness of patients, and sweetness of life, and nature of hope, maketh men depend upon physicians with all their defects. But, nevertheless, these things, which we have spoken of, are courses begotten between a little occasion, and a great deal of sloth and default; for if we will excite and awake our observation, we shall see, in familiar instances, what a predominant faculty the subtilty of spirit hath over the variety of matter or form: nothing more variable than faces and countenances, yet men can bear in memory the infinite distinctions of them; nay, a painter with a few shells of colours, and the benefit of his eye, and habit of his imagination, can imitate them all that ever have been, are, or may be, if they were brought before him. Nothing more variable than voices, yet men can likewise discern them personally; nay, you shall have a buffoon, or *pantomimus*, will express as many as he pleaseth. Nothing more variable than the differing sounds of words, yet men have found the way to reduce them to a few simple letters. So that it is not the insufficiency or incapacity of man's mind, but it is the remote standing or placing thereof, that breedeth these mazes and incomprehensions: for as the sense afar off is full of mistaking, but is exact at hand, so it is of the understanding; the remedy whereof is not to quicken or strengthen the organ, but to go nearer to the object; and therefore there is no doubt, but if the physicians will learn and use the true approaches and avenues of nature, they may assume as much as the poet saith:

*Et quoniam variant morbi, variabimus artes;  
Mille mali species, mille salutis erunt.*

Which



## Book II.

Which that they should do, the nobleness of their art doth deserve, well shadowed by the poets, in that they made *Æsculapius* to be the son of the Sun, the one being the fountain of life, the other as the second stream; but infinitely more honoured by the example of our Saviour, who made the body of man the object of his miracles, as the soul was the object of his doctrine. For we read not that ever he vouchsafed to do any miracle about honour or money (except that one for giving tribute to *Cæsar*) but only about the preserving, sustaining, and healing the body of man.

Medicine is a science which hath been (as we have said) more professed than laboured, and yet more laboured than advanced; the labour having been, in my judgment, rather in circle, than in progression. For I find much iteration, but small addition. It considereth the causes of diseases, with the occasions or impressions; the diseases themselves, with the accidents; and the cures, with the prescriptions. The deficiencies which I think good to note, being a few of many, and those such as are of a more open and manifest nature, I will enumerate and not place.

The first is the discontinuance of the ancient and serious diligence of *Hippocrates*, which used to set down a narrative of the special cases of his patients, and how they proceeded, and how they were judged by recovery or death. Narrationes medicinales. Therefore having an example proper in the father of the art, I shall not need to alledge an example foreign, of the wisdom of the lawyers, who are careful to report new cases and decisions for the direction of future judgments. This continuance of Medicinal History I find deficient, which I understand neither to be so infinite as to extend to every common case, nor so reserved, as to admit none but wonders; for many things are new, in the manner, which are not new in the kind; and if men will intend to observe, they shall find much worthy to observe.

In the enquiry which is made by anatomy, I find much deficiency: for they inquire of the parts, and their substances, figures, and collocations; but they inquire not of the diversities of the parts, the secrecies of the passages, and the seats or nestling of the humours, nor much of the footsteps and impressions of diseases; the reason of which omission I suppose to be, because the first inquiry may be satisfied in the view of one or a few anatomies; but the latter being comparative and casual, must arise from the view of many. And as to the diversity of parts, there is no doubt but the fracture or framing of the inward parts, is as full of difference as the outward, and in that is the cause continent of many diseases, which not being observed, they quarrel many times with the humours, which are not in fault, the fault being in the very frame and mechanic of the part, which cannot be removed by medicine alterative, but must be accommodated and palliated by diets and medicines familiar. And for the passages and pores, it is true, which was anciently noted, that the more subtle of them appear not in anatomies, because they are shut and latent in dead bodies, though they be open and manifest in live: which being supposed, though the inhumanity of *anatomia vivorum* was by *Celsus* justly reprovèd; yet in regard of the great use of this observation, the inquiry needed not by him so slightly to have been relinquished altogether, or referred to the casual practices of surgery, but might have been well diverted upon the dissection of beasts alive, which, notwithstanding the dissimilitude of their parts, may sufficiently satisfy this inquiry. And for the humours, they are commonly passed over in anatomies as purgaments, whereas it is most necessary to observe, what cavities, nests, and receptacles the humours do find in the parts, with the differing kind of the humour so lodged and received. And as for the footsteps of diseases, and their devastations of the inward parts, impressions, exulcerations, discontinuations, putrefactions, consumptions, contractions, extensions, convulsions, dislocations, obstructions, repletions, together with all preternatural substances, as stones, carnosities, excrescencies, worms, and the like; they ought to have been exactly observed by multitude of anatomies, and the contribution of mens several experiences, and carefully set down both historically, according to the appearances, and artificially, with a reference to the diseases and symptoms which resulted from them, in case where the anatomy is of a defective patient;



patient; whereas now upon opening of bodies, they are passed over slightly and in silence.

Inquisitio  
ulterior de  
morbis in-  
sanabili-  
bus.

In the inquiry of diseases they do abandon the cures of many, some as in their nature incurable, and others as passed the period of cure; so that Sylla and the triumvirs never proscribed so many men to die, as they do by their ignorant edicts, whereof numbers do escape with less difficulty, than they did in the Roman proscriptions. Therefore I will not doubt to note as a deficiency, that they inquire not the perfect cures of many diseases, or extremities of diseases, but pronouncing them incurable, do enact a law of neglect, and exempt ignorance from discredit.

De Eutha-  
nasia exte-  
rior.

Nay farther, I esteem it the office of a physician not only to restore health, but to mitigate pain and dolors, and not only when such mitigation may conduce to recovery, but when it may serve to make a fair and easy passage: for it is no small felicity which Augustus Cæsar was wont to wish to himself, that same *euthanasia*, and which was specially noted in the death of Antoninus Pius, whose death was after the fashion and semblance of a kindly and pleasant sleep. So it is written of Epicurus, that after his disease was judged desperate, he drowned his stomach and senses with a large draught and ingurgitation of wine; whereupon the epigram was made, *Hinc Stygias ebrius bavit aquas*: he was not sober enough to taste any bitterness of the Stygian water. But the physicians, contrariwise, do make a kind of scruple and religion to stay with the patient after the disease is deplored; whereas, in my judgment, they ought both to inquire the skill, and to give the attendances for the facilitating and asswaging of the pains and agonies of death.

Medici-  
nae expe-  
rimenta-  
les.

In the consideration of the cures of diseases, I find a deficiency in the receipts of propriety, respecting the particular cures of diseases: for the physicians have frustrated the fruit of tradition and experience by their magistralties, in adding, and taking out, and changing *quid pro quo*, in their receipts, at their pleasures, commanding so over the medicine, as the medicine cannot command over the disease; for except it be treacle and *Mithridatum*, and of late *diascordium*, and a few more, they tie themselves to no receipts severely and religiously: for as to the confessions of sale which are in the shops, they are for readiness, and not for propriety; for they are upon general intentions of purging, opening, comforting, altering, and not much appropriated to particular diseases; and this is the cause why empiricks and old women are more happy many times in their cures than learned physicians, because they are more religious in holding their medicines. Therefore here is the deficiency which I find, that physicians have not, partly out of their own practice, partly out of the constant probations reported in books, and partly out of the traditions of empiricks, set down and delivered over certain experimental medicines, for the cure of particular diseases, besides their own conjectural and magistral descriptions. For as they were the men of the best composition in the state of Rome, which either being consuls inclined to the people, or being tribunes inclined to the senate; so in the matter we now handle, they be the best physicians, which being learned, incline to the traditions of experience, or being empiricks, incline to the methods of learning.

Imitatio  
naturae in  
minerali-  
bus, et in  
balneis, et  
inward parts,  
that no man  
hath sought  
to make an  
imitation by  
art of natural  
baths, and  
medicinal  
fountains;  
which never-  
theless are  
confessed to  
receive their  
virtues from  
minerals; and  
not so only,  
but discerned  
and distinguished  
from what  
particular  
mineral they  
receive tincture,  
as sulphur,  
vitriol, steel,  
or the like;  
which nature,  
if it may be  
reduced to  
compositions  
of art, both  
the variety  
of them will  
be increased,  
and the temper  
of them will  
be more com-  
manded.

In preparation of medicines I do find strange, especially considering how nature in mineral medicines have been extolled, and that they are safer for the outward than balneis, et inward parts, that no man hath sought to make an imitation by art of natural baths, and medicinal fountains; which nevertheless are confessed to receive their virtues from minerals; and not so only, but discerned and distinguished from what particular mineral they receive tincture, as sulphur, vitriol, steel, or the like; which nature, if it may be reduced to compositions of art, both the variety of them will be increased, and the temper of them will be more commanded.

Filium me-  
dicinale,  
or to propor-  
tion; I will  
conclude this  
part with the  
note of one  
deficiency more,  
which seemeth  
to me of greatest  
consequence;  
which is, that  
the precepts in  
use are too  
compendious  
to attain their  
end; for to my  
understanding,  
it is a vain  
and flattering  
opinion to think  
any medicine  
can be so sover-  
eign, or so happy,  
as that the  
receipt or use  
of it can work  
any great effect  
upon the body  
of man: it  
were a strange  
speech, which  
spoken, or  
spoken oft,  
should reclaim  
a man from a vice  
to which he  
were by nature  
subject; it is  
order, pursuit,  
sequence, and  
interchange



interchange of application, which is mighty in nature; which although it require more exact knowledge in prescribing, and more precise obedience in observing, yet is recompensed with the magnitude of effects. And although a man would think by the daily visitations of the physicians, that there were a pursuance in the cure; yet let a man look into their precepts and ministrations, and he shall find them but inconsistencies, and every day's devices without any settled providence or project; not that every scrupulous or superstitious precept is effectual, no more than every strait way is the way to heaven, but the truth of the direction must pre-  
cede severity of observance.

For Cosmetics, it hath parts civil, and parts effeminate: for cleanliness of body was ever esteemed to proceed from a due reverence to God, to society, and to ourselves. As for artificial decoration, it is well worthy of the deficiencies which it hath; being neither fine enough to deceive, nor handsome to use, nor wholesome to please.

For Athletick, I take the subject of it largely, that is to say, for any point of ability, whereunto the body of man may be brought, whether it be of activity; or of patience; whereof activity hath two parts, strength and swiftness: and patience likewise hath two parts, hardness against wants and extremities, and endurance of pain or torment, whereof we see the practices in tumblers, in savages, and in those that suffer punishment: nay, if there be any other faculty which falls not within any of the former divisions, as in those that dive, that obtain a strange power of containing respiration, and the like, I refer it to this part. Of these things the practices are known, but the philosophy that concerneth them is not much inquired; the rather, I think, because they are supposed to be obtained, either by an aptness of nature, which cannot be taught, or only by continual custom, which is soon prescribed; which though it be not true, yet I forbear to note any deficiencies, for the Olympian games are down long since, and the mediocrity of these things is for use; as for the excellency of them, it serveth for the most part but for mercenary ostentation.

For arts of Pleasure sensual, the chief deficiency in them is of laws to repress them. For as it hath been well observed, that the arts which flourish in times while virtue is in growth, are military, and while virtue is in state, are liberal, and while virtue is in declination, are voluptuary; so I doubt, that this age of the world is somewhat upon the descent of the wheel. With arts voluptuary I couple practices jocular; for the deceiving of the senses is one of the pleasures of the senses. As for games of recreation, I hold them to belong to civil life and education. And thus much of that particular human philosophy which concerns the body, which is but the tabernacle of the mind.

For Human knowledge which concerns the Mind, it hath two parts, the one that enquireth of the substance or nature of the soul or mind; the other that inquireth of the faculties or functions thereof.

Unto the first of these, the considerations of the original of the soul, whether it be native or adventive, and how far it is exempted from laws of matter, and of the immortality thereof, and many other points, do appertain; which have been not more laboriously inquired, than variously reported; so as the travel therein taken, seemeth to have been rather in a maze than in a way. But although I am of opinion, that this knowledge may be more really and soundly inquired even in nature than it hath been; yet I hold, that in the end it must be bounded by religion, or else it will be subject to deceit and delusion: for as the substance of the soul in the creation was not extracted out of the mass of heaven and earth, by the benediction of a *procreat*, but was immediately inspired from God; so it is not possible that it should be (otherwise than by accident) subject to the laws of heaven and earth, which are the subject of philosophy; and therefore the true knowledge of the nature, and state of the soul, must come by the same inspiration that gave the substance. Unto this part of knowledge touching the soul there be two appendixes, which as they have been handled, have rather vapoured forth fables than kindled truth, divination and fascination.

Divination hath been anciently and filly divided into artificial, and natural; whereof



whereof artificial is, when the mind maketh a prediction by argument, concluding upon signs and tokens: natural is, when the mind hath a presentation by an internal power, without the inducement of a sign. Artificial is of two sorts, either when the argument is coupled with a derivation of causes, which is rational; or when it is only grounded upon a coincidence of the effect, which is experimental; whereof the latter for the most part is superstitious: such as were the heathen observations upon the inspection of sacrifices, the flights of birds, the swarming of bees, and such as were the Chaldean astrology, and the like. For artificial divination, the several kinds thereof are distributed amongst particular knowledges. The astronomer hath his predictions, as of conjunctions, aspects, eclipses, and the like. The physician hath his predictions, of death, of recovery, of the accidents and issues of diseases. The politician hath his predictions; *O urbem venalem, et cito perituram, si emptorem invenerit!* which stayed not long to be performed in Sylla first, and after in Caesar; so as these predictions are now impertinent, and to be referred over. But the divination which springeth from the internal nature of the soul, is that which we now speak of, which hath been made to be of two sorts, primitive, and by influxion. Primitive is grounded upon the supposition, that the mind, when it is withdrawn and collected into itself, and not diffused into the organs of the body, hath some extent and latitude of prenotion, which therefore appeareth most in sleep, in extasies, and near death, and more rarely in waking apprehensions; and is induced and furnished by those abstinences and observances which make the mind most to consist in itself. By influxion, is grounded upon the conceit that the mind, as a mirror or glass, should take illumination from the foreknowledge of God and spirits; unto which the same regiment doth likewise conduce. For the retiring of the mind within itself, is the state which is most susceptible of divine influxions, save that it is accompanied in this case with a fervency and elevation (which the ancients noted by fury) and not with a repose and quiet, as it is in the other.

Fascination is the power and act of imagination intensive upon other bodies than the body of the imaginant; for of that we spake in the proper place; wherein the school of Paracelsus, and the disciples of pretended natural magick, have been so intemperate, as they have exalted the power of the imagination to be much one with the power of miracle-working faith: others, that draw nearer to probability, calling to their view the secret passages of things, and especially of the contagion that passeth from body to body, do conceive it should likewise be agreeable to nature, that there should be some transmissions and operations from spirit to spirit, without the mediation of the senses; whence the conceits have grown (now almost made civil) of the mastering spirit, and the force of confidence, and the like. Incident unto this is the inquiry how to raise and fortify the imagination; for if the imagination fortified have power, then it is material to know how to fortify and exalt it. And herein comes in crookedly and dangerously, a palliation of a great part of ceremonial magick. For it may be pretended, that ceremonies, characters, and charms, do work, not by any tacit or sacramental contract with evil spirits, but serve only to strengthen the imagination of him that useth it; as images are said by the Roman church, to fix the cogitations, and raise the devotions of them that pray before them. But for mine own judgment, if it be admitted that imagination hath power, and that ceremonies fortify imagination, and that they be used sincerely and intentionally for that purpose; yet I should hold them unlawful, as opposing to that first edict, which God gave unto man, *In sudore vultus comedes panem tuum*. For they propound those noble effects, which God hath set forth unto man to be bought at the price of labour, to be attained by a few eazy, and slothful observances. Deficiencies in these knowledges I will report none, other than the general deficiency, that it is not known how much of them is verity, and how much vanity.

The knowledge which respecteth the faculties of the mind of man, is of two kinds; the one respecting his understanding and reason, and the other his will, appetite and affection; whereof the former produceth position or decree, the latter action or execution. It is true that the imagination is an agent or *nuncius*



## Book II.

in both provinces, both the judicial and the ministerial. For sense sendeth over to imagination before reason have judged, and reason sendeth over to imagination before the decree can be acted: for imagination ever precedeth voluntary motion, saving that this Janus of imagination hath differing faces; for the face towards reason hath the print of truth, but the face towards action hath the print of good, which nevertheless are faces,

*Quales decet esse fororum.*

Neither is the imagination simply and only a messenger, but is invested with, or at leastwise usurpeth no small authority in itself, besides the duty of the message. For it was well said by Aristotle, "That the mind hath over the body that commandment, which the lord hath over a bond-man; but that reason hath over the imagination that commandment, which a magistrate hath over a free citizen," who may come also to rule in his turn. For we see, that in matters of faith and religion, we raise our imagination above our reason, which is the cause why religion sought ever access to the mind by similitudes, types, parables, visions, dreams. And again in all persuasions that are wrought by eloquence, and other impression of like nature, which do paint and disguise the true appearance of things, the chief recommendation unto reason is from the imagination. Nevertheless, because I find not any science that doth properly or fitly pertain to the imagination, I see no cause to alter the former division. For as for poetry, it is rather a pleasure, or play of imagination, than a work or duty thereof. And if it be a work, we speak not now of such parts of learning as the imagination produceth, but of such sciences as handle and consider of the imagination; no more than we shall speak now of such knowledges as reason produceth (for that extendeth to all philosophy) but of such knowledges as do handle and inquire of the faculty of reason; so as poetry had its true place. As for the power of the imagination in nature, and the manner of fortifying the same, we have mentioned it in the doctrine *De anima*, wherunto most fitly it belongeth: and lastly, for imaginative or insinuating reason, which is the subject of rhetoric, we think it best to refer it to the arts of reason. So therefore we content ourselves with the former division, that Human Philosophy, which respecteth the faculties of the mind of man, hath two parts, Rational and Moral.

The part of Human Philosophy which is Rational, is of all knowledges, to the most wits, the least delightful, and seemeth but a net of subtilty and spinosity: for as it was truly said, that knowledge is *pabulum animi*; so in the nature of mens appetite to this food, most men are of the taste and stomach of the Israelites in the desert, that would fain have returned *ad ollas carnium*, and were weary of manna; which though it were celestial, yet seemed less nutritive and comfortable. So generally men taste well knowledges that are drenched in flesh and blood, civil history, morality, policy, about the which mens affections, praises, fortunes, do turn and are convertant; but this same *lumen secundum* doth parch and offend most mens watry and soft natures. But to speak truly of things as they are in worth, *rational knowledges* are the keys of all other arts; for as Aristotle saith aptly and elegantly, "That the hand is the instrument of instruments, and the mind is the form of forms;" so these be truly said to be the arts of arts; neither do they only direct, but likewise confirm and strengthen: even as the habit of shooting doth not only enable to shoot a nearer shoot, but also to draw a stronger bow.

The arts intellectual are four in number, divided according to the ends wherunto they are referred; for man's labour is to invent that which is sought or propounded; or to judge that which is invented; or to retain that which is judged; or to deliver over that which is retained. So as the arts must be four; art of inquiry or invention; art of examination or judgment; art of custody or memory; and art of elocution or tradition.

Invention is of two kinds, much differing; the one of arts and sciences, and the other of speech and arguments. The former of these I do report deficient; which seemeth to me to be such a deficiency, as if in the making of an inventory, touching the state of a defunct, it should be set down, That there

Vol. I.

R

is



is no ready money. For as money will fetch all other commodities, so this knowledge is that which should purchase all the rest. And like as the West-Indies had never been discovered, if the use of the mariner's needle had not been first discovered, though the one be vast regions, and the other a small motion: so it cannot be found strange, if sciences be no farther discovered, if the art itself of invention and discovery hath been passed over.

That this part of knowledge is wanting, to my judgment, standeth plainly confessed: for first, logick doth not pretend to invent sciences, or the axioms of sciences, but passeth it over with a *cuique in sua arte credendum*. And Celsus acknowledgeth it gravely, speaking of the empirical and dogmatical sects of physicians, "That medicines and cures were first found out, and then after the reasons and causes were discoursed; and not the causes first found out, and by light from them the medicines and cures discovered." And Plato in his *Theætetus*, noteth well, "That particulars are infinite, and the higher generalities give no sufficient direction; and that the pith of all sciences, which maketh the artfman differ from the inexpert, is in the middle propositions, which in every particular knowledge are taken from tradition and experience." And therefore we see, that they which discourse of the inventions and originals of things, refer them rather to chance than to art, and rather to beasts, birds, fishes, serpents, than to men.

*Distantum genitrix Cretaea carpit ab Ida,  
Puberibus caulem foliis, et flore contentum  
Purpureo: non illa feris incognita capris,  
Gramina cum tergo volucres hæsere sagittæ.*

So that it was no marvel (the manner of antiquity being to consecrate inventors) that the Ægyptians had so few human idols in their temples, but almost all brute; *Omnigenumque Deum monstra, et latrator Anubis,  
Contra Neptunum, et Venerem, contraque Minervam, etc.*

And if you like better the tradition of the Grecians, and ascribe the first inventions to men, yet you will rather believe that Prometheus first struck the flints, and marvelled at the spark, than that when he first struck the flints the flints, the spark; and therefore we see the West-Indian Prometheus had no intelligence with the European, because of the rareness with them of flint, that gave the first occasion: so as it should seem, that hitherto men are rather beholden to a wild goat for surgery, or to a nightingale for musick, or to the Ibis for some part of physick, or to the postid that flew open for artillery, or generally to chance, or any thing else, than to logick, for the invention of arts and sciences. Neither is the form of invention which Virgil describeth much other.

*Vi varias usus mediando extunderet artes  
Paulatim.*

For if you observe the words well, it is no other method than that which brute beasts are capable of and do put in ure: which is a perpetual intending or practising some one thing, urged and imposed by an absolute necessity of conservation of being; for so Cicero saith very truly, *Usus uni rei deditus, et naturam et artem saepe vincit*. And therefore if it be said of men,

*Labor omnia vincit*

*Improbis, et duris urgens in rebus egestas;*  
it is likewise said of beasts, *Quis pisticco docuit sumum xaipe;* Who taught the raven in a drought to throw pebbles into an hollow tree where she espied water, that the water might rise so as she might come to it? Who taught the bee to sail through such a vast sea of air, and to find the way from a field in flower, a great way off, to her hive? Who taught the ant to bite every grain of corn that she burieth in her hill, lest it should take root and grow? Add then the word *extunderet*, which importeth the extreme difficulty; and the word *paulatim*, which importeth the extreme slowness; and we are where we were, even amongst the Ægyptians gods; there being little left to the faculty of reason, and nothing to the duty of art, for matter of invention.

Secondly, the induction which the logicians speak of, and which seemeth familiar with Plato, whereby the principles of sciences may be pretended to be invented,



invented, and so the middle propositions by derivation from the principles; their form of induction, I say, is utterly vicious and incompetent; wherein their error is the fouler, because it is the duty of art to perfect and exalt nature; but they contrariwise have wronged, abused, and traduced nature. For he that shall attentively observe how the mind doth gather this excellent dew of knowledge, like unto that which the poet speaketh of, *Aerei mellis coelestia dona*, distilling and contriving it out of particulars natural and artificial, as the flowers of the field and garden, shall find that the mind of herself by nature doth manage and act an induction, much better than they describe it. For to conclude upon an enumeration of particulars without instance contradictory, is no conclusion, but a conjecture; for who can assure (in many subjects) upon those particulars which appear of a side, that there are not other on the contrary side which appear not. As if Samuel should have rested upon those sons of Jesse, which were brought before him, and failed of David which was in the field. And this form (to say truth) is so gross, as it had not been possible for wits so subtle, as have managed these things, to have offered it to the world, but that they hasted to their theories and dogmaticals, and were imperious and scornful toward particulars, which their manner was to use but as *listores* and *viatores*, for sergeants and whiffers, *ad summovendam turbam*, to make way and make room for their opinions, rather than in their true use and service: certainly it is a thing may touch a man with a religious wonder to see how the footsteps of seducement are the very same in divine and human truth; for as in divine truth man cannot endure to become as a child; so in human, they reputed the attending the inductions (whereof we speak) as if it were a second infancy or childhood.

Thirdly, allow some principles or axioms were rightly induced, yet nevertheless certain it is, that middle propositions cannot be deduced from them in subject of nature by syllogism, that is, by touch and reduction of them to principles in a middle term. It is true, that in sciences popular, as moralities, laws, and the like; yea and divinity, (because it pleaseth God to apply himself to the capacity of the simplest) that form may have use, and in natural philosophy likewise, by way of argument or satisfactory reason, *Quae assensum parit, operis effecta est*; but the subtilty of nature and operations will not be incained in those bonds: for arguments consist of propositions, and propositions of words, and words are but the current tokens or marks of popular notions of things; which notions, if they be grossly and variably collected out of particulars, it is not the laborious examination either of consequences of arguments, or of the truth of propositions, that can ever correct that error, being (as the physicians speak) in the first digestion; and therefore it was not without cause, that so many excellent philosophers became scepticks and academicks, and denied any certainty of knowledge or comprehension, and held opinion, that the knowledge of man extended only to appearances and probabilities. It is true, that in Socrates it was supposed to be but a form of irony, *Scientiam dissimulando simulavit*: for he used to disable his knowledge, to the end to enhance his knowledge, like the humour of Tiberius in his beginnings, that would reign, but would not acknowledge so much; and in the later academy, which Cicero embraced, this opinion also of *acatalepsia* (I doubt) was not held sincerely: for that all those which excelled in *copia* of speech, seem to have chosen that sect as that which was fittest to give glory to their eloquence, and variable discourses; being rather like progresses of pleasure, than journeys to an end. But assuredly many scattered in both academies did hold it in subtilty and integrity. But here was their chief error; they charged the deceit upon the senses, which in my judgment (notwithstanding all their cavillations) are very sufficient to certify and report truth (though not always immediately, yet by comparison) by help of instrument, and by producing and urging such things, as are too subtil for the sense, to some effect comprehensible by the sense; and other like assistance. But they ought to have charged the deceit upon the weakness of the intellectual powers, and upon the manner of collecting, and concluding upon the reports of the senses. This I speak not to disable the mind of man, but to stir it up to seek help: for no man, be he never so cunning or practised, can make a straight line or perfect circle by steadiness of hand, which may be easily done by help of a ruler or compass.



Experien-  
tia litera-  
ta, et in-  
terpreta-  
tio natu-  
ræ.

This part of invention, concerning the invention of sciences, I purpose (if God give me leave) hereafter to propound, having digested it into two parts; whereof the one I term *experientia literata*, and the other, *interpretatio naturæ*: the former being but a degree and rudiment of the latter. But I will not dwell too long, nor speak too great upon a promise.

The invention of speech or argument is not properly an invention; for to invent, is to discover that we know not, and not to recover or resummon that which we already know; and the use of this invention is no other, but out of the knowledge, whereof our mind is already possessed, to draw forth or call before us that which may be pertinent to the purpose which we take into our consideration. So as, to speak truly, it is no invention, but a remembrance or suggestion, with an application; which is the cause why the schools do place it after judgment, as subsequent and not precedent. Nevertheless, because we do account it a chace, as well of deer in an inclosed park, as in a forest at large, and that it hath already obtained the name; let it be called invention, so as it be perceived and discerned that the scope and end of this invention is readiness and present use of our knowledge, and not addition or amplification thereof.

To procure this ready use of knowledge there are two courses, preparation and suggestion. The former of these seemeth scarcely a part of knowledge, consisting rather of diligence than of any artificial erudition. And herein Aristotle wittily, but hurtfully, doth deride the sophists near his time, saying, "They did as if "one that professed the art of shoemaking should not teach how to make up a shoe, "but only exhibit in a readiness a number of shoes of all fashions and sizes." But yet a man might reply, that if a shoemaker should have no shoes in his shop but only work as he is bespoken, he should be weakly customed. But our Saviour, speaking of divine knowledge, saith, *that the kingdom of heaven is like a good householder, that bringeth forth both new and old store*: and we see the ancient writers of rhetoric do give it in precept, that pleaders should have the places whereof they have most continual use, ready handled in all the variety that may be; as that, to speak for the literal interpretation of the law against equity, and contrary; and to speak for presumptions and inferences against testimony, and contrary. And Cicero himself, being broken unto it by great experience, delivereth it plainly: that whatsoever a man shall have occasion to speak of (if he will take the pains) may have it in effect premeditate, and handled *in thes*: so that when he cometh to a particular, he shall have nothing to do but to put to names, and times, and places, and such other circumstances of individuals. We see likewise the exact diligence of Demosthenes, who in regard of the great force that the entrance and access into causes hath to make a good impression, had ready framed a number of prefaces for orations and speeches. All which authorities and precedents may overweigh Aristotle's opinion, that would have us change a rich wardrobe for a pair of shears.

But the nature of the collection of this provision or preparatory store, though it be common both to logick and rhetoric, yet having made an entry of it here, where it came first to be spoken of, I think fit to refer over the farther handling of it to rhetoric.

The other part of invention, which I term suggestion, doth assign and direct us to certain marks or places, which may excite our mind to return and produce such knowledge, as it hath formerly collected, to the end we may make use thereof. Neither is this use (truly taken) only to furnish argument to dispute probably with others, but likewise to minister unto our judgment to conclude aright within ourselves. Neither may these places serve only to prompt our invention, but also to direct our enquiry. For a faculty of wise interrogating is half a knowledge. For as Plato saith, "Whosoever seeketh, knoweth that which he seeketh for "in a general notion, else how shall he know it when he hath found it?" And therefore the larger your anticipation is, the more direct and compendious is your search. But the same places which will help us what to produce of that which we know already, will also help us, if a man of experience were before us, what questions to ask; or, if we have books and authors to instruct us, what points to search and revolve: so as I cannot report, that this part of invention, which is that which the schools call topicks, is deficient.



## Book II.

Nevertheless topicks are of two sorts, general and special. The general we have spoken to, but the particular hath been touched by some, but rejected generally as inartificial and variable. But leaving the humour which hath reigned too much in the schools (which is, to be vainly subtle in a few things, which are within their command, and to reject the rest) I do receive particular topicks, that is, places or directions of invention and enquiry in every particular knowledge, as things of great use, being mixtures of logicke with the matter of sciences: for in these it holdeth, *Ars inveniendi adolescit cum inventis*; for as in going of a way, we do not only gain that part of the way which is passed, but we gain the better sight of that part of the way which remaineth; so every degree of proceeding in a science giveth a light to that which followeth, which light if we strengthen, by drawing it forth into questions or places of enquiry, we do greatly advance our pursuit.

Now we pass unto the arts of judgment, which handle the natures of proofs and demonstrations, which as to induction hath a coincidence with invention: for in all inductions, whether in good or vicious form, the same action of the mind which inventeth, judgeth; all one as in the sense: but otherwise it is in proof by syllogism; for the proof being not immediate, but by mean, the invention of the mean is one thing, and the judgment of the consequence is another; the one exciting only, the other examining. Therefore, for the real and exact form of judgment, we refer our selves to that which we have spoken of interpretation of nature.

For the other judgment by syllogism, as it is a thing most agreeable to the mind of man, so it hath been vehemently and excellently laboured; for the nature of man doth extremely covet to have somewhat in his understanding fixed and unmoveable, and as a rest and support of the mind. And therefore as Aristotle endeavoureth to prove, that in all motion there is some point quiescent; and as he elegantly expoundeth the ancient fable of Atlas (that stood fixed, and bare up the heaven from falling) to be meant of the poles or axle-tree of heaven, whereupon the conversion is accomplished; so assuredly men have a desire to have an Atlas or axle-tree within, to keep them from fluctuation, which is like to a perpetual peril of falling; therefore men did hasten to set down some principles about which the variety of their disputations might turn.

So then this art of judgment is but the reduction of propositions to principles in a middle term. The principles to be agreed by all, and exempted from argument: the middle term to be elected at the liberty of every man's invention: the reduction to be of two kinds, direct and inverted; the one when the proposition is reduced to the principle, which they term a probation offensive; the other, when the contradictory of the proposition is reduced to the contradictory of the principle, which is, that which they call *per incommodum*, or pressing an absurdity; the number of middle terms to be as the proposition standeth degrees more or less removed from the principle.

But this art hath two several methods of doctrine, the one by way of direction, the other by way of caution; the former frameth and setteth down a true form of consequence, by the variations and deflexions from which errors and inconsequences may be exactly judged. Toward the composition and structure of which form it is incident to handle the parts thereof, which are propositions, and the parts of propositions, which are simple words; and this is that part of logicke which is comprehended in the analyticke.

The second method of doctrine was introduced for expedite use and assurance sake, discovering the more subtle forms of sophisms and illaqueations, with their redargutions, which is that which is termed elenches. For although in the more gross sorts of fallacies it happeneth (as Seneca maketh the comparison well) as in juggling feats, which though we know not how they are done, yet we know well it is not as it seemeth to be; yet the more subtle sort of them doth not only put a man besides his answer, but doth many times abuse his judgment.

This part concerning Elenches, is excellently handled by Aristotle in precept, but more excellently by Plato in example; not only in the persons of the sophists, but even in Socrates himself, who professing to affirm nothing, but to inform that



which was affirmed by another, hath exactly exprest all the forms of objection, fallacy, and redargution. And although we have said that the use of this doctrine is for redargution; yet it is manifest, the degenerate and corrupt use is for captation and contradiction, which passeth for a great faculty, and no doubt is of very great advantage, though the difference be good which was made between orators and sophisters, that the one is as the greyhound, which hath his advantage in the race, and the other as the hare, which hath her advantage in the turn, so as it is the advantage of the weaker creature.

But yet farther, this doctrine of Elenches hath a more ample latitude and extent, than is perceived; namely, unto divers parts of knowledge; whereof some are laboured and others omitted. For first, I conceive (though it may seem at first somewhat strange) that that part which is variably referred, sometimes to logic, sometimes to metaphysick, touching the common adjuncts of essences, is but an Elenche; for the great sophism of all sophisms being equivocation or ambiguity of words and phrase, especially of such words as are most general and intervene in every inquiry; it seemeth to me that the true and fruitful uses (leaving vain subtilties and speculations) of the inquiry of majority, minority, priority, posteriority, identity, diversity, possibility, act, totality, parts, existence, privation, and the like, are but wise cautions against ambiguities of speech. So again, the distribution of things into certain tribes, which we call categories or predicaments, are but cautions against the confusion of definitions and divisions.

Secondly, there is a seducement that worketh by the strength of the impression, and not by the subtilty of the illaqueation, not so much perplexing the reason, as over-ruling it by power of the imagination. But this part I think more proper to handle, when I shall speak of rhetoric.

But lastly, there is yet a much more important and profound kind of fallacies in the mind of man, which I find not observed or inquired at all, and think good to place here, as that which of all others appertaineth most to rectify judgment: the force whereof is such, as it doth not daze or snare the understanding in some particulars, but doth more generally and inwardly infect and corrupt the state thereof. For the mind of man is far from the nature of a clear and equal glass, wherein the beams of things should reflect according to their true incidence; nay, it is rather like an enchanted glass, full of superstition and imposture, if it be not delivered and reduced. For this purpose, let us consider the false appearances that are imposed upon us by the general nature of the mind, beholding them in an example or two, as first in that instance, which is the root of all superstition: namely, that to the nature of the mind of all men it is consonant for the affirmative or active to effect, more than the negative or privative. So that a few times hitting, or presence, countervails oft-times failing, or absence; as was well answered by Diagoras to him that shewed him, in Neptune's temple, the great number of pictures of such as had escaped shipwreck, and had paid their vows to Neptune, saying; "Advise now, you that think it folly to invoke Neptune in temple." "Yea, but (saith Diagoras) where are they painted that are drowned?" Let us behold it in another instance, namely, "That the spirit of man, being of an equal" "and uniform substance, doth usually suppose and feign in nature a greater" "equality and uniformity, than is in truth." Hence it cometh, that the mathematicians cannot satisfy themselves, except they reduce the motions of the celestial bodies to perfect circles, rejecting spiral lines, and labouring to be discharged of eccentricicks. Hence it cometh, that whereas there are many things in nature, as it were *monodica, sui juris*; yet the cogitations of man do feign unto them relatives, parallels, and conjugates, whereas no such thing is; as they have feigned an element of fire to keep square with earth, water, and air, and the like; nay, it is not credible, till it be opened, what a number of fictions and fantasies, the similitude of human actions and arts, together with the making of man *communis mensura*, have brought into natural philosophy, not much better than the heresy of the Anthropomorphites, bred in the cells of gross and solitary monks, and the opinion of Epicurus, answerable to the same in heathenism, who supposed the gods to be of human shape. And therefore Velleius the Epicurean needed not to have asked, why God should have adorned the heavens with stars, as if he had been



been an *Ædilis*; one that should have set forth some magnificent shews or plays. For if that great work-master had been of an human disposition, he would have cast the stars into some pleasant and beautiful works and orders, like the frets in the roofs of houses; whereas one can scarce find a posture in square, or triangle, or straight line, amongst such an infinite number; so differing an harmony there is between the spirit of man, and the spirit of nature.

Let us consider, again, the false appearances imposed upon us by every man's own individual nature and custom, in that feigned supposition that Plato maketh of the cave; for certainly, if a child were continued in a grot or cave under the earth until maturity of age, and came suddenly abroad, he would have strange and absurd imaginations. So in like manner, although our persons live in the view of heaven, yet our spirits are included in the caves of our own complexions and customs, which minister unto us infinite errors and vain opinions, if they be not recalled to examination. But hereof we have given many examples in one of the errors, or peccant humours, which we ran briefly over in our first book.

And lastly, let us consider the false appearances that are imposed upon us by words, which are framed and applied according to the conceit and capacities of the vulgar sort; and although we think we govern our words, and prescribe it well, *Loquendum ut vulgus, sentiendum ut sapientes*; yet certain it is, that words, as a Tartar's bow, do shoot back upon the understanding of the wisest, and mightily entangle and pervert the judgment; so as it is almost necessary in all controversies and disputations, to imitate the wisdom of the mathematicians, in setting down in the very beginning the definitions of our words and terms, that others may know how we accept and understand them, and whether they concur with us or no. For it cometh to pass, for want of this, that we are sure to end there where we ought to have begun, which is in questions and differences about words. To conclude therefore, it must be confessed that it is not possible to divorce ourselves from these fallacies and false appearances, because they are inseparable from our nature and condition of life; so yet nevertheless the caution of them (for all clenches, as was said, are but cautions) doth extremely import the true conduct of human judgment. The particular clenches or cautions against these three false appearances, I find altogether deficient.

There remaineth one part of judgment of great excellency, which to mine understanding is so slightly touched, as I may report that also deficient; which is, the application of the differing kinds of proofs to the differing kinds of subjects; for there being but four kinds of demonstrations, that is, by the immediate consent of the mind or sense, by induction, by syllogism, and by congruity; which is that which Aristotle calleth demonstration in orb, or circle, and not *a notioribus*; every of these hath certain subjects in the matter of sciences, in which respectively they have chiefest use; and certain others, from which respectively they ought to be excluded, and the rigor and curiosity in requiring the more severe proofs in some things, and chiefly the facility in contenting ourselves with the more remiss proofs in others, hath been amongst the greatest causes of detriment and hindrance to knowledge. The distributions and assignments of demonstrations, according to the analogy of sciences, I note as deficient.

The custody or retaining of knowledge is either in writing or memory; whereof writing hath two parts, the nature of the character, and the order of the entry; for the art of characters, or other visible notes of words or things, it hath nearest conjugation with grammar; and therefore I refer it to the due place: for the disposition and collocation of that knowledge which we preserve in writing, it consisteth in a good digest of common places, wherein I am not ignorant of the prejudice imputed to the use of common-place books, as causing a retardation of reading, and some sloth or relaxation of memory. But because it is but a counterfeited thing in knowledges, to be forward and pregnant, except a man be deep and full, I hold the entry of common places, to be a matter of great use and essence in studying, as that which assureth *copia*, of invention, and contracteth judgment to a strength. But this is true, that of the methods of common places that I have seen, there is none of any sufficient worth, all of them carrying merely the face of a school, and not of a world, and referring to vulgar matters, and pedantic divisions, without all life, or respect to action.



For the other principal part of the custody of knowledge, which is memory, I find that faculty in my judgment weakly inquired of. An art there is extant of it; but it seemeth to me that there are better precepts than that art, and better practices of that art, than those received. It is certain the art, as it is, may be raised to points of ostentation prodigious: but in use (as it is now managed) it is barren, not burdensome, nor dangerous to natural memory, as is imagined, but barren; that is, not dexterous to be applied to the serious use of business and occasions. And therefore I make no more estimation of repeating a great number of names or words upon once hearing, or the pouring forth of a number of verses or rhimes *ex tempore*, or the making of a satirical simile of every thing, or the turning of every thing to a jest, or the falsifying or contradicting of every thing by cavil, or the like (whereof in the faculties of the mind there is great copia, and such as by device and practice may be exalted to an extreme degree of wonder) than I do of the tricks of tumblers, funambuloes, baladines; the one being the same in the mind, that the other is in the body; matters of strangeness without worthiness.

This art of memory is but built upon two intentions; the one prenotion, the other emblem. Prenotion dischargeth the indefinite seeking of that we would remember, and directeth us to seek in a narrow compass; that is, somewhat that hath congruity with our place of memory. Emblem reduceth conceits intellectual to images sensible, which strike the memory more; out of which axioms may be drawn much better practice than that in use: and besides which axioms, there are divers more, touching help of memory, not inferior to them. But I did in the beginning distinguish, not to report those things deficient, which are but only ill managed.

There remaineth the fourth kind of rational knowledge, which is transitive, concerning the expressing or transferring our knowledge to others, which I will term by the general name of tradition or delivery. Tradition hath three parts: the first concerning the organ of tradition; the second, concerning the method of tradition; and the third, concerning the illustration of tradition.

For the organ of tradition, it is either speech or writing: for Aristotle saith well, "Words are the images of cogitations, and letters are the images of words;" but yet it is not of necessity that cogitations be expressed by the medium of words. For whatsoever is capable of sufficient differences, and those perceptible by the sense, is in nature competent to express cogitations. And therefore we see in the commerce of barbarous people, that understand not one another's language, and in the practice of divers that are dumb and deaf, that mens minds are expressed in gestures, though not exactly, yet to serve the turn. And we understand farther, that it is the use of China, and the kingdoms of the high Levant, to write in characters real, which express neither letters nor words in gross, but things or notions; inasmuch as countries and provinces, which understand not one another's language, can nevertheless read one another's writings, because the characters are accepted more generally than the languages do extend; and therefore they have a vast multitude of characters, as many (I suppose) as radical words.

These notes of cogitations are of two sorts; the one when the note hath some similitude or congruity with the notion; the other *ad placitum*, having force only by contract or acceptation. Of the former sort are hieroglyphicks and gestures. For as to hieroglyphicks (things of ancient use, and embraced chiefly by the Egyptians, one of the most ancient nations) they are but as continued impressions and emblems. And as for gestures, they are as transitory hieroglyphicks, and are to hieroglyphicks as words spoken are to words written, in that they abide not: but they have evermore, as well as the other, an affinity with the things signified; as Perander, being consulted with how to preserve a tyranny newly usurped, bid the messenger attend and report what he saw him do, and went into his garden and topped all the highest flowers; signifying, that it consisted in the cutting off and keeping low of the nobility and grandees. *Ad placitum* are the characters real before mentioned, and words: although some have been willing by curious inquiry, or rather by apt feigning, to have derived imposition of names from reason and intentment;



intendment; a speculation elegant, and by reason it searcheth into antiquity reverent; but sparingly mixed with truth, and of small fruit. This portion of <sup>De notis</sup> knowledge, touching the notes of things, and cogitations in general, I find not inquired, but deficient. And although it may seem of no great use, considering that words and writings by letters, do far excel all the other ways; yet because this part concerneth, as it were, the mint of knowledge (for words are the tokens current and accepted for conceits, as moneys are for values, and that it is fit men be not ignorant, that moneys may be of another kind than gold and silver) I thought good to propound it to better inquiry.

Concerning speech and words, the consideration of them hath produced the science of Grammar; for man still striveth to re-integrate himself in those benedictions, from which by his fault he hath been deprived: and as he hath striven against the first general curse, by the invention of all other arts; so hath he sought to come forth of the second general curse (which was the confusion of tongues) by the art of grammar, whereof the use in a mother tongue is small; in a foreign tongue more; but most in such foreign tongues as have ceased to be vulgar tongues, and are turned only to learned tongues. The duty of it is of two natures; the one popular, which is for the speedy and perfect attaining languages, as well for intercourse of speech, as for understanding of authors; the other philosophical, examining the power and nature of words, as they are the footsteps and prints of reason: which kind of analogy between words and reason is handled *sparſim*, brokenly, though not entirely; and therefore I cannot report it deficient, though I think it very worthy to be reduced into a science by itself.

Unto grammar also belongeth, as an appendix, the consideration of the accidents of words, which are measure, sound, and elevation or accent, and the sweetness and harshness of them: whence hath issued some curious observations in rhetoric, but chiefly poesy, as we consider it, in respect of the verse, and not of the argument; wherein though men in learned tongues do tye themselves to the ancient measures, yet in modern languages it seemeth to me, as free to make new measures of verses, as of dances; for a dance is a measured pace, as a verse is a measured speech. In these things the sense is better judge than the art;

*Coenae fercula nostrae,  
Mallem convivis, quam placuisse cocis.*

And of the servile expressing antiquity in an unlike and an unfit subject, it is well said, *Quod tempore antiquum videtur, id incongruitate est maxime novum.*

For ciphers, they are commonly in letters or alphabets, but may be in words. The kinds of ciphers (besides the simple ciphers, with changes, and intermixtures of nuls and non-significants) are many, according to the nature or rule of the infolding: wheel-ciphers, key-ciphers, doubles, *etc.* But the virtues of them, whereby they are to be preferred, are three; that they be not laborious to write and read; that they be impossible to decipher; and in some cases, that they be without suspicion. The highest degree whereof is to write *omnia per omnia*; which is undoubtedly possible with a proportion quincuple at most, of the writing infolding, to the writing infolded, and no other restraint whatsoever. This art of ciphering hath for relative an art of deciphering, by supposition unprofitable, but, as things are, of great use. For suppose that ciphers were well managed, there be multitudes of them which exclude the decipherer. But in regard of the rawness and unskilfulness of the hands through which they pass, the greatest matters are many times carried in the weakest ciphers.

In the enumeration of these private and retired arts, it may be thought I seek to make a great muster-roll of sciences, naming them for shew and ostentation, and to little other purpose. But let those which are skilful in them judge, whether I bring them in only for appearance, or whether in that which I speak of them (though in few words) there be not some seed of proficience. And this must be remembered, that as there be many of great account in their countries and provinces, which when they come up to the seat of the estate, are but of mean rank, and scarcely regarded: so these arts being here placed with



the principal and supreme sciences, seem petty things; yet to such as have chosen them to spend their labours and studies in them, they seem great matters.

For the method of tradition, I see it hath moved a controversy in our time. But as in civil business, if there be a meeting, and men fall at words, there is commonly an end of the matter for that time, and no proceeding at all: so in learning, where there is much controversy, there is many times little inquiry. For this part of knowledge of method seemeth to me so weakly inquired, as I shall report it deficient.

Method hath been placed, and that not amiss, in logick, as a part of judgment; for as the doctrine of syllogisms comprehendeth the rules of judgment upon that which is invented, so the doctrine of method containeth the rules of judgment upon that which is to be delivered; for judgment precedeth delivery, as it followeth invention. Neither is the method or the nature of the tradition material only to the use of knowledge, but likewise to the progression of knowledge: for since the labour and life of one man cannot attain to perfection of knowledge, the wisdom of the tradition is that which inspirith the felicity of continuance and proceeding. And therefore the most real diversity of method, is of method referred to use, and method referred to progression, whereof the one may be termed magistral, and the other of probation.

The latter whereof seemeth to be *via deserta et interclusa*. For as knowledges are now delivered, there is a kind of contract of error, between the deliverer and the receiver; for he that delivereth knowledge, desireth to deliver it in such form as may be best believed, and not as may be best examined: and he that receiveth knowledge, desireth rather present satisfaction than expectant inquiry; and so rather not to doubt, than not to err; glory making the author not to lay open his weakness, and sloth making the disciple not to know his strength.

But knowledge, that is delivered as a thread to be spun on, ought to be delivered and intimated, if it were possible, in the same method wherein it was invented, and so is it possible of knowledge induced. But in this same anticipated and prevented knowledge, no man knoweth how he came to the knowledge which he hath obtained. But yet nevertheless, *secundum magis et minus*, a man may revivify and descend unto the foundations of his knowledge and consent; and so transplant it into another, as it grew in his own mind. For it is in knowledges, as it is in plants, if you mean to use the plant, it is no matter for the roots; but if you mean to remove it to grow, then it is more assured to rest upon roots than slips: so the delivery of knowledges (as it is now used) is as of fair bodies of trees without the roots; good for the carpenter, but not for the planter. But if you will have sciences grow, it is less matter for the method or body of the tree, so you look well to the taking up of the roots: of which kind of delivery the method of the mathematicks, in that subject, hath some shadow; but generally I see it neither put in use nor put in inquiry, and therefore note it for deficient.

De methodo  
finis  
certa, five  
ad filios  
scientiarum.

Another diversity of method there is, which hath some affinity with the former, used in some cases by the discretion of the ancients, but disgraced since by the impostors of many vain persons, who have made it as a false light for their counterfeit merchandises; and that is, enigmatical and disclosed. The pretence whereof is to remove the vulgar capacities from being admitted to the secrets of knowledges, and to reserve them to selected auditors, or wits of such sharpness as can pierce the veil.

Another diversity of method, whereof the consequence is great, is the delivery of knowledge in aphorisms, or in methods; wherein we may observe, that it hath been too much taken into custom, out of a few axioms or observations upon any subject to make a solemn and formal art, filling it with some discourses, and illustrating it with examples, and digesting it into a sensible method; but the writing in aphorisms hath many excellent virtues, whereto the writing in method doth not approach.

For first it trieth the writer, whether he be superficial or solid: for aphorisms, except they should be ridiculous, cannot be made but of the pith and heart of sciences; for discourse of illustration is cut off, recitals of examples are cut off;

discourse



## Book II.

discourse of connection and order is cut off; descriptions of practice are cut off; so there remaineth nothing to fill the aphorisms, but some good quantity of observation: and therefore no man can suffice, nor in reason will attempt to write aphorisms, but he that is found and grounded. But in methods,

*Tantum series juncturaque pollet,*

*Tantum de medio sumptis accedit honoris;*

as a man shall make a great shew of an art, which if it were disjointed, would come to little. Secondly, methods are more fit to win consent or belief, but less fit to point to action; for they carry a kind of demonstration in orb or circle, one part illuminating another, and therefore satisfy. But particulars being dispersed, do best agree with dispersed directions. And lastly, aphorisms, representing a knowledge broken, do invite men to inquire farther; whereas methods carrying the shew of a total, do secure men, as if they were at farthest.

Another diversity of method, which is likewise of great weight, is, the handling of knowledge by assertions, and their proofs; or by questions, and their determinations; the latter kind whereof, if it be immoderately followed, is as prejudicial to the proceeding of learning, as it is to the proceeding of an army, to go about to besiege every little fort or hold. For if the field be kept, and the sum of the enterprize pursued, those smaller things will come in of themselves; indeed a man would not leave some important piece enemy at his back. In like manner, the use of confutation in the delivery of sciences ought to be very sparing; and to serve to remove strong preoccupations and prejudgments, and not to minister and excite disputations and doubts.

Another diversity of method is according to the subject or matter which is handled; for there is a great difference in delivery of the mathematicks, which are the most abstracted of knowledges, and policy, which is the most immerged; and howsoever contention hath been moved, touching an uniformity of method in multiformity of matter: yet we see how that opinion, besides the weakness of it, hath been of ill desert, towards learning, as that which taketh the way to reduce learning to certain empty and barren generalities; being but the very husks and shells of sciences, all the kernel being forced out and expulsed with the torture and press of the method: And therefore as I did allow well of particular topics for invention, so do I allow likewise of particular methods of tradition.

Another diversity of judgment in the delivery and teaching of knowledge, is according unto the light and presuppositions of that which is delivered; for that knowledge, which is new and foreign from opinions received, is to be delivered in another form, than that that is agreeable and familiar; and therefore Aristotle, when he thinks to tax Democritus doth in truth commend him, where he saith, "If we shall indeed dispute, and not follow after similitudes," *etc.* For those, whose conceits are seated in popular opinions, need only but to prove or dispute: but those whose conceits are beyond popular opinions, have a double labour; the one to make themselves conceived, and the other to prove and demonstrate: so that it is of necessity with them to have recourse to similitudes and translations to express themselves. And therefore in the infancy of learning, and in rude times, when those conceits which are now trivial were then new, the world was full of parables and similitudes; for else would men either have passed over without mark, or else rejected for paradoxes, that which was offered, before they had understood or judged. So in divine learning, we see how frequent parables and tropes are: for it is a rule, "That whatsoever science is not consonant to presuppositions, must pray in aid of similitudes."

There be also other diversities of methods vulgar and received: as that of resolution or *analysis*, of constitution or *synthesis*, of concealment or cryptick, *etc.* which I do allow well of, though I have stood upon those which are least handled and observed. All which I have remember'd to this purpose, because I would erect and constitute one general inquiry (which seems to me deficient) touching the wisdom of tradition.

But unto this part of knowledge concerning method, doth farther belong, not only the architecture of the whole frame of a work, but also the several beams and columns thereof, not as to their stuff, but as to their quantity and figure: and therefore



therefore method considereth, not only the disposition of the argument or subject, but likewise the propositions; not as to their truth or matter, but as to their limitation and manner. For herein Ramus merited better a great deal in reviving the good rules of propositions, Καθόλας πρῶτον κατὰ παρὰς, etc. than he did in introducing the canker of epitomes; and yet (as it is the condition of human things, that, according to the antient fables, “The most precious things have the most pernicious keepers;”) it was so, that the attempt of the one, made him fall upon the other. For he had need be well conducted, that should design to make axioms convertible; if he make them not withal circular, and *non prominent*, or incurring into themselves: but yet the intention was excellent.

The other considerations of method concerning propositions, are chiefly touching the utmost propositions, which limit the dimensions of sciences; for every knowledge may be fitly said, besides the profundity (which is the truth and substance of it that makes it solid) to have a longitude and a latitude, accounting the latitude towards other sciences, and the longitude towards action; that is, from the greatest generality, to the most particular precept: The one giveth rule how far one knowledge ought to intermeddle within the province of another, which is the rule they call καθόλου: the other giveth rule, unto what degree of particularity a knowledge should descend: which latter I find passed over in silence, being in my judgment the more material; for certainly there must be somewhat left to practice; but how much is worthy the inquiry. We see remote and superficial generalities do but offer knowledge to scorn of practical men, and are no more aiding to practice, than an Ortelius’s universal map is to direct the way between London and York. The better sort of rules have been not unfitly compared to glasses of steel unpolished; where you may see the images of things, but first they must be filed; so the rules will help, if they be laboured and polished by practice. But how crystalline they may be made at the first, and how far forth they may be polished afterward, is the question; the inquiry whereof seemeth to me deficient.

De pro-  
ductione  
axiomatum.

There hath been also laboured, and put in practice, a method, which is not a lawful method, but a method of imposture, which is, to deliver knowledges in such manner as men may speedily come to make a shew of learning, who have it not; such was the travel of Raymundus Lullius in making that art, which bears his name, not unlike to some books of typocofmy which have been made since, being nothing but a mass of words of all arts, to give men countenance, that those which use the terms might be thought to understand the art; which collections are much like a fripper’s or broker’s shop, that hath ends of every thing, but nothing of worth.

Now we descend to that part which concerneth the illustration of tradition, comprehended in that science which we call Rhetorick, or art of eloquence; a science excellent and excellently well laboured. For although in true value it is inferior to wisdom, as it is said by God to Moses, when he disabled himself for want of this faculty, *Aaron shall be thy speaker, and thou shalt be to him as God*. Yet with people it is the more mighty: For so Solomon saith, *Sapiens corde appellabitur prudens, sed dulcis eloquio majora reperiet*; signifying, that profoundness of wisdom will help a man to a name or admiration, but that it is eloquence that prevailleth in an active life; and as to the labouring of it, the emulation of Aristotle with the rhetoricians of his time, and the experience of Cicero, hath made them in their works of rhetoricks exceed themselves. Again, the excellency of examples of eloquence in the orations of Demosthenes and Cicero, added to the perfection of the precepts of eloquence, hath doubled the progression in this art: and therefore the deficiencies which I shall note, will rather be in some collections, which may as hand-maids attend the art, than in the rules or use of the art itself.

Notwithstanding, to stir the earth a little about the roots of this science, as we have done of the rest; the duty and office of rhetorick is to apply reason to imagination, for the better moving of the will: for we see reason is disturbed in the administration thereof by three means; by illaqueation or sophism, which pertains to logick; by imagination or impression, which pertains to rhetorick; and by passion or affection, which pertains to morality. And as in negotiation

with



with others, men are wrought by cunning, by importunity, and by vehemency; so in this negotiation within ourselves, men are undermined by inconsequences, solicited and importuned by impressions or observations, and transported by passions. Neither is the nature of man so unfortunately built, as that those powers and arts should have force to disturb reason, and not to establish and advance it; for the end of logick is to teach a form of argument to secure reason, and not to intrap it. The end of morality, is to procure the affections to obey reason, and not to invade it. The end of rhetoric, is to fill the imagination to second reason, and not to oppress it; for these abuses of arts come in but *ex obliquo* for caution.

And therefore it was great injustice in Plato, though springing out of a just hatred of the rhetoricians of his time, to esteem of rhetoric but as a voluptuary art, resembling it to cookery, that did mar wholesome meats, and help unwholsome by variety of sauces, to the pleasure of the taste. For we see that speech is much more convertant in adorning that which is good, than in colouring that which is evil; for there is no man but speaketh more honestly than he can do or think; and it was excellently noted by Thucydides in Cleon, that because he used to hold on the bad side in causes of estate, therefore he was ever inveighing against eloquence and good speech, knowing that no man can speak fair of courses fordid and base. And therefore as Plato said elegantly, "That Virtue, if she could be seen, would move great love and affection:" so seeing that she cannot be shewed to the sense by corporal shape, the next degree is, to shew her to the imagination in lively representation: for to shew her to reason only in subtilty of argument, was a thing ever derided in Chrysippus, and many of the Stoicks, who thought to thrust virtue upon men by sharp disputations and conclusions, which have no sympathy with the will of man.

Again, if the affections in themselves were pliant and obedient to reason, it were true, there should be no great use of persuasions and insinuations to the will, more than of naked proposition and proofs: but in regard of the continual mutinies and seditions of the affections,

*Vide meliora, proboque;*

*Deteriora sequor;*

Reason would become captive and servile, if eloquence of persuasions did not practise and win the imagination from the affections part, and contract a confederacy between the reason and imagination, against the affections; for the affections themselves carry ever an appetite to good, as reason doth. The difference is, that the affection beholdeth merely the present, reason beholdeth the future and sum of time. And therefore the present filling the imagination more, reason is commonly vanquished; but after that force of eloquence and persuasion hath made things future and remote appear as present, then upon the revolt of the imagination reason prevaileth.

We conclude therefore, that rhetoric can be no more charged with the colouring of the worse part, than logick with sophistry, or morality with vice. For we know the doctrines of contraries are the same, though the use be opposite. It appeareth also, that logick differeth from rhetoric, not only as the fist from the palm, the one close, the other at large; but much more in this, that logick handleth reason exact, and in truth; and rhetoric handleth it as it is planted in popular opinions and manners. And therefore Aristotle doth wisely place rhetoric as between logick on the one side, and moral or civil knowledge on the other, as participating of both: for the proofs and demonstrations of logick are toward all men indifferent and the same: but the proofs and persuasions of rhetoric ought to differ according to the auditors:

*Orpheus in syris, inter delphinas Arion.*

Which application, in perfection of idea, ought to extend so far, that if a man should speak of the same thing to several persons, he should speak to them all respectively, and several ways: though this politick part of eloquence in private speech, it is easy for the greatest orators to want; whilst by the observing their well graced forms of speech, they lose the volubility of application: and therefore it shall not be amiss to recommend this to better inquiry, not being curious whether we place it here, or in that part which concerneth policy.

VOL. I.

U

Now

De priv-  
monis pri-  
vati.



Colores  
boni et  
ma'i, sim-  
plicis et  
comparati.

Now therefore will I descend to the deficiencies, which (as I said) are but attendances: and first, I do not find the wisdom and diligence of Aristotle well pursued, who began to make a collection of the popular signs and colours of good and evil, both simple and comparative, which are as the sophisms of rhetorick (as I touched before.) For example;

SOPHISMA.

*Quod laudatur, bonum: quod vituperatur, malum.*

REDARGUTIO.

*Laudat venales qui vult extrudere merces.*

*Malum est, malum est (inquit emptor;) sed cum recesserit, tum gloriabitur.*

The defects in the labour of Aristotle are three; one, that there be but a few of many; another, that their elenchus's are not annexed; and the third, that he conceived but a part of the use of them: for their use is not only in probation, but much more in impression. For many forms are equal in signification, which are differing in impression; as the difference is great in the piercing of that which is sharp, and that which is flat, tho' the strength of the percussion be the same: for there is no man but will be a little more raised by hearing it said; "Your enemies will be glad of this;"

*Hoc Ithacus velit, et magno mercentur Atreidae;*

than by hearing it said only, "This is evil for you."

Secondly, I do resume also that which I mentioned before, touching provision or preparatory store, for the furniture of speech and readiness of invention, which appeareth to be of two sorts; the one in resemblance to a shop of pieces unmade up, the other to a shop of things ready made up, both to be applied to that which is frequent and most in request: the former of these I will call *antibeta*, and the latter *formulae*.

*Antibeta*  
rerum.

*Antibeta* are *theses* argued *pro et contra*, wherein men may be more large and laborious; but (in such as are able to do it) to avoid prolixity of entry, I with the seeds of the several arguments to be cast up into some brief and acute sentences, not to be cited, but to be as scanes or bottoms of thread, to be unwinded at large when they come to be used; supplying authorities and examples by reference.

#### PRO VERBIS LEGIS.

*Non est interpretatio, sed diviniatio, quae recedit a litera.*

*Cum receditur a litera, iudex transit in legistatorem.*

#### PRO SENTENTIA LEGIS.

*Ex omnibus verbis est eliciendus sensus, qui interpretatur singula.*

*Formulae* are but decent and apt passages or conveyances of speech, which may serve indifferently for differing subjects; as of preface, conclusion, digression, transition, excusation, *etc.* For as in buildings there is great pleasure and use in the well casting of the stair-cases, entries, doors, windows, and the like; so in speech, the conveyances and passages are of special ornament and effect.

#### A CONCLUSION IN A DELIBERATIVE.

*So may we redeem the faults passed, and prevent the inconveniencies future.*

There remain two *appendices* touching the tradition of knowledge, the one critical, the other pedantical; for all knowledge is either delivered by teachers, or attained by mens proper endeavours: and therefore as the principal part of tradition of knowledge concerneth chiefly writing of books, so the relative part thereof concerneth reading of books: whereunto appertain incidently these considerations. The first is concerning the true correction and edition of authors, wherein nevertheless rash diligence hath done great prejudice. For these criticks have often presumed that that which they understand not, is false set down. As the priest, that where he found it written of St. Paul, *Demissus est per sportam*, mended his book, and made it *Demissus est per portam*, because *sportia* was an hard word, and out of his reading: and surely their errors, though they be not so palpable and ridiculous, yet are of the same kind. And therefore as it hath been wisely noted, the most corrected copies are commonly the least correct.

The second is concerning the exposition and explication of authors, which resteth in annotations and commentaries, wherein it is over usual to blanch the obscure places, and discourse upon the plain.



The third is concerning the times, which in many cases give great light to true interpretations.

The fourth is concerning some brief censure and judgment of the authors, that men thereby may make some election unto themselves what books to read.

And the fifth is concerning the syntax and disposition of studies, that men may know in what order or pursuit to read.

For pedantical knowledge, it containeth that difference of tradition which is proper for youth, whereunto appertain divers considerations of great fruit.

As first the timing and seasoning of knowledges; as with what to initiate them, and from what for a time to refrain them.

Secondly, the consideration where to begin with the easiest, and so proceed to the more difficult, and in what courses to press the more difficult, and then to turn them to the more easy; for it is one method to practise swimming with bladders, and another to practise dancing with heavy shoes.

A third is the application of learning according unto the propriety of the wits; for there is no defect in the faculties intellectual but seemeth to have a proper cure contained in some studies: as for example, if a child be bird-witted, that is, hath not the faculty of attention, the mathematicks giveth a remedy thereunto, for in them, if the wit be caught away but a moment, one is new to begin: and as sciences have a propriety towards faculties for cure and help, so faculties or powers have a sympathy towards sciences for excellency or speedy profiting; and therefore it is an inquiry of great wisdom what kinds of wits and natures are most proper for what sciences.

Fourthly, the ordering of exercises is matter of great consequence to hurt or help: for, as is well observed by Cicero, men in exercising their faculties, if they be not well advised, do exercise their faults, and get ill habits as well as good; so there is a great judgment to be had in the continuance and intermission of exercises. It were too long to particularize a number of other considerations of this nature; things but of mean appearance, but of singular efficacy: for as the wronging or cherishing of seeds or young plants, is that that is most important to their thriving; and as it was noted, that the first six kings, being in truth as tutors of the state of Rome in the infancy thereof, was the principal cause of the immense greatness of that state which followed; so the culture and manurance of minds in youth hath such a forcible (though unseen) operation, as hardly any length of time or continuation of labour can countervail it afterwards. And it is not amiss to observe also, how small and mean faculties gotten by education, yet when they fall into great men or great matters, do work great and important effects; whereof we see a notable example in Tacitus, of two stage-players, Percennius and Vibulenus, who by their faculty of playing put the Pannonian armies into an extreme tumult and combustion; for there arising a mutiny amongst them, upon the death of Augustus Caesar, Blæsus the lieutenant had committed some of the mutineers, which were suddenly rescued; whereupon Vibulenus got to be heard speak, which he did in this manner: "These poor innocent wretches appointed to cruel death, you have restored to behold the light: but who shall restore my brother to me, or life unto my brother, that was sent hither in message from the regions of Germany, to treat of the common cause? And he hath murdered him this last night by some of his fencers and rustians, that he hath about him for his executioners upon soldiers. Answer, Blæsus, what is done with his body? The mortallest enemies do not deny burial; when I have performed my last duties to the corps with kisses, with tears, command me to be slain besides him, so that these my fellows, for our good meaning, and our true hearts to the legions, may have leave to bury us." With which speech he put the army into an infinite fury and uproar; whereas truth was he had no brother, neither was there any such matter, but he play'd it merely as if he had been upon the stage.

But to return, we are now come to a period of rational knowledges, wherein if I have made the divisions other than those that are received, yet would I not be thought to disallow all those divisions which I do not use; for there is a double necessity imposed upon me of altering the divisions. The one, because it differeth in end and purpose, to sort together those things which are next in nature, and those



those things which are next in use; for if a secretary of estate should sort his papers, it is like in his study, or general cabinet, he would sort together things of a nature, as treaties, instructions, *etc.* but in his boxes, or particular cabinet, he would sort together those that he were like to use together, though of several natures; so in this general cabinet of knowledge it was necessary for me to follow the divisions of the nature of things; whereas if myself had been to handle any particular knowledge, I would have respected the divisions fittest for use. The other, because the bringing in of the deficiencies did by consequence alter the partitions of the rest; for let the knowledge extant (for demonstration sake) be fifteen, let the knowledge with the deficiencies be twenty, the parts of fifteen are not the parts of twenty, for the parts of fifteen are three and five, the parts of twenty are two, four, five and ten; so as these things are without contradiction, and could not otherwise be.

We proceed now to that knowledge which considereth of the appetite and Will of Man, whereof Solomon saith, *Ante omnia, fili, custodi cor tuum, nam inde procedunt actiones vitæ.* In the handling of this science, those which have written seem to me to have done as if a man that professed to teach to write, did only exhibit fair copies of alphabets, and letters joined, without giving any precepts or directions for the carriage of the hand and framing of the letters; so have they made good and fair exemplars and copies, carrying the draughts and pourtraiures of good, virtue, duty, felicity; propounding them well described as the true objects and scopes of man's will and desires; but how to attain these excellent marks, and how to frame and subdue the will of man to become true and conformable to these pursuits, they pass it over altogether, or slightly and unprofitably; for it is not the disputing that moral virtues are in the mind of man by habit and not by nature, or the distinguishing that generous spirits are won by doctrines and persuasions, and the vulgar sort by reward and punishment, and the like scattered glances and touches, that can excuse the absence of this part.

The reason of this omission I suppose to be that hidden rock whereupon both this and many other barks of knowledge have been cast away; which is, that men have despised to be conversant in ordinary and common matters, the judicious direction whereof nevertheless is the wisest doctrine (for life consisteth not in novelties nor subtilties) but contrariwise they have compounded sciences chiefly of a certain resplendent or lustrous mas of matter, chosen to give glory either to the subtilty of disputations, or to the eloquence of discourses. But Seneca giveth an excellent check to eloquence: *Noct illis eloquentia, quibus non rerum cupiditatem facit, sed sui.* Doctrine should be such as should make men in love with the lesson, and not with the teacher, being directed to the auditor's benefit, and not to the author's commendation; and therefore those are of the right kind which may be concluded as Demosthenes concludes his counsel, *Quæ si feceritis, non oratorem duntaxat in præsentia laudabitis, sed vosmetipsos etiam, non ita multo post statu rerum vestrarum meliore.* Neither needed men of so excellent parts to have depaired of a fortune, which the poet Virgil promised himself, and indeed obtained, who got as much glory of eloquence, wit, and learning in the expressing of the observations of hubbndry, as of the heroical acts of *Aeneas*:

*Nec sum animi dubius, verbis ea vincere magnum*

*Quam sit, et angustis hunc addere rebus bonorem.*

Georg. iii. 289.

And surely if the purpose be in good earnest not to write at leisure that which men may read at leisure, but really to instruct and suborn action and active life, these georgics of the mind concerning the hubbndry and tillage thereof, are no less worthy than the heroical descriptions of virtue, duty, and felicity. Wherefore the main and primitive division of moral knowledge seemeth to be into the Exemplar or Platform of Good, and the Regiment or Culture of the Mind; the one describing the nature of good, the other prescribing rules how to subdue, apply, and accommodate the will of man therunto.

The doctrine touching the Platform or Nature of Good considereth it either simple or compared, either the kinds of good, or the degrees of good; in the latter whereof those infinite disputations which were touching the supreme degree thereof,



thereof, which they term felicity, beatitude, or the highest good (the doctrines concerning which were as the heathen diversity) are by the christian faith discharged. And, as Aristotle saith, "That young men may be happy, but not otherwise but by hope;" so we must all acknowledge our minority, and embrace the felicity which is by hope of the future world.

Freed therefore, and delivered from this doctrine of the philosophers heaven, whereby they feigned an higher elevation of man's nature than was (for we see in what an height of style Seneca writeth, *Vere magnum, habere fragilitatem hominis, securitatem Dei*) we may with more sobriety and truth receive the rest of their inquiries and labours; wherein for the nature of good, positive or simple, they have set it down excellently, in describing the forms of virtue and duty with their situations and postures, in distributing them into their kinds, parts, provinces, actions, and administrations, and the like: nay farther, they have commended them to man's nature and spirit, with great quickness of argument and beauty of persuasions; yea, and fortified and entrenched them (as much as discourse can do) against corrupt and popular opinions. Again, for the degrees and comparative nature of good, they have also excellently handled it in their triplicity of good, in the comparison between a contemplative and an active life, in the distinction between virtue with reluctance, and virtue secured, in their encounters between honesty and profit, in their balancing of virtue with virtue, and the like; so as this part deserveth to be reported for excellently laboured.

Notwithstanding, if before they had come to the popular and received notions of virtue and vice, pleasure and pain, and the rest, they had stayed a little longer upon the inquiry concerning the roots of good and evil, and the strings of those roots, they had given, in my opinion, a great light to that which followed; and specially if they had consulted with nature, they had made their doctrines less prolix and more profound: which being by them in part omitted and in part handled with much confusion, we will endeavour to resume and open in a more clear manner.

There is formed in every thing a double nature of good, the one as every thing is a total or substantive in itself, the other as it is a part or member of a greater body; whereof the latter is in degree the greater and the worthier, because it tendeth to the conservation of a more general form: therefore we see the iron in particular sympathy moveth to the loadstone, but yet if it exceed a certain quantity, it forsaketh the affection to the loadstone, and like a good patriot moveth to the earth, which is the region and country of massy bodies; so may we go forward and see that water and massy bodies move to the center of the earth, but rather than to suffer a divulsion in the continuance of nature they will move upwards from the center of the earth, forsaking their duty to the earth in regard of their duty to the world. This double nature of good and the comparative thereof is much more engraven upon man, if he degenerate not, unto whom the conservation of duty to the publick ought to be much more precious than the conservation of life and being; according to that memorable speech of Pompeius Magnus, when being in commission of purveyance for a famine at Rome, and being dissuaded with great vehemency and instance by his friends about him, that he should not hazard himself to sea in an extremity of weather, he said only to them, *Necesse est ut eam, non ut vivam*: but it may be truly affirmed that there was never any philosophy, religion, or other discipline, which did so plainly and highly exalt the good which is communicative, and depress the good which is private and particular, as the holy faith: well declaring, that it was the same God that gave the christian law to men, who gave those laws of nature to inanimate creatures that we spoke of before; for we read that the elected saints of God have wished themselves anathematized and razed out of the book of life, in an extasy of charity, and infinite feeling of communion.

This being set down and strongly planted, doth judge and determine most of the controversies wherein moral philosophy is conversant. For first, it decideth the question touching the preferment of the contemplative or active life, and decideth it against Aristotle: for all the reasons which he bringeth for the



contemplative, are private, and respecting the pleasure and dignity of a man's self (in which respects, no question, the contemplative life hath the preeminence;) not much unlike to that comparison, which Pythagoras made for the gracing and magnifying of philosophy and contemplation; who being asked what he was, answered, "That if Hiero were ever at the Olympian games, he knew the manner, that some came to try their fortune for the prizes, and some came as merchants to utter their commodities, and some came to make good cheer and meet their friends, and some came to look on, and that he was one of them that came to look on." But men must know, that in this theatre of man's life, it is reserved only for God and angels to be lookers on: neither could the like question ever have been received in the church (notwithstanding their *Pretiosa in oculis Domini mors sanctorum ejus*; by which place they would exalt their civil death and regular professions) but upon this defence, that the monastical life is not simply contemplative, but performeth the duty either of incessant prayers and supplications, which hath been truly esteemed as an office in the church, or else of writing or taking instructions for writing concerning the law of God; as Moses did when he abode so long in the mount. And so we see Enoch the seventh from Adam, who was the first contemplative, and walked with God; yet did also endow the church with prophecy, which St. Jude citeth. But for contemplation which should be finished in itself, without casting beams upon society, assuredly divinity knoweth it not.

It decideth also the controversies between Zeno and Socrates, and their schools and successions on the one side, who placed felicity in virtue simply or attended; the actions and exercises whereof do chiefly embrace and concern society; and on the other side, the Cyrenaicks and Epicureans, who placed it in pleasure, and made virtue (as it is used in some comedies of errors, wherein the mistress and the maid change habits) to be but as a servant, without which pleasure cannot be served and attended: and the reformed school of the Epicureans, which placed it in serenity of mind and freedom from perturbation; as if they would have deposed Jupiter again, and restored Saturn and the first age, when there was no summer nor winter, spring nor autumn, but all after one air and season: and Herillus, which placed felicity in extinguishment of the disputes of the mind, making no fixed nature of good and evil, esteeming things according to the clearness of the desires, or the reluctance; which opinion was revived in the heresy of the Anabaptists, measuring things according to the motions of the spirit, and the constancy or wavering of belief: all which are manifest to tend to private repose and contentment, and not to point of society.

It censureth also the philosophy of Epictetus, which presupposeth that felicity must be placed in those things which are in our power, lest we be liable to fortune and disturbance; as if it were not a thing much more happy to sail in good and virtuous ends for the publick, than to obtain all that we can wish to ourselves in our proper fortune; as Consalvo said to his soldiers, shewing them Naples, and protesting "He had rather die one foot forwards, than to have his life secured for long, by one foot of retreat." Whereunto the wisdom of that heavenly leader hath signed, who hath affirmed, *that a good conscience is a continual feast*; shewing plainly, that the conscience of good intentions, howsoever succeeding, is a more continual joy to nature, than all the provision which can be made for security and repose.

It censureth likewise that abuse of philosophy, which grew general about the time of Epictetus, in converting it into an occupation or profession; as if the purpose had been not to resist and extinguish perturbations, but to fly and avoid the causes of them, and to shape a particular kind and course of life to that end, introducing such an health of mind, as was that health of body, of which Aristotle speaketh of Herodicus, who did nothing all his life long but intend his health: whereas if men refer themselves to duties of society; as that health of body is best, which is ablest to endure all alterations and extremities: so likewise that health of mind is most proper, which can go through the greatest temptations and perturbations. So as Diogenes's opinion is to be accepted, who commended not them which abstained, but them which sustained, and could



## Book II.

could restrain their mind in *praecipitio*, and could give unto the mind (as is used in horsemanship) the shortest stop or turn.

Lastly, it censurcth the tenderness and want of application in some of the most ancient and reverend philosophers and philosophical men, that did retire too easily from civil business, for avoiding of indignities and perturbations; whereas the resolution of men truly moral, ought to be such as the same Con-salvo said the honour of a soldier should be, *e tela crassiore*, and not so fine, as that every thing should catch in it and endanger it.

To resume private or particular good, it falleth into the division of good active and passive: for this difference of good (not unlike to that which amongst the Romans was expressed in the familiar or household terms of *Promus* and *Condus*) is formed also in all things, and is best disclosed in the two several appetites in creatures; the one to preserve or continue themselves, and the other to dilate or multiply themselves: whereof the latter seemeth to be the wor-thier; for in nature the heavens, which are the more worthy, are the agent; and the earth, which is the less worthy, is the patient: in the pleasures of living creatures, that of generation is greater than that of food: in divine doctrine, *Beatus est dare, quam accipere*: and in life there is no man's spirit so soft, but esteemeth the effecting of somewhat that he hath fixed in his desire, more than sensuality. Which priority of the active good is much upheld by the consideration of our estate to be mortal and exposed to fortune: for if we might have a perpetuity and certainty in our pleasures, the state of them would advance their price; but when we see it is but *Magni aestimamus mori tardius*, and *Ne gloriaris de crassino, nescis partum diei*, it maketh us to desire to have somewhat secured and exempted from time, which are only our deeds and works; as it is said, *Opera eorum sequuntur eos*. The preheminance likewise of this active good is upheld by the affection which is natural in man towards variety and proceeding, which in the pleasures of the sense, which is the principal part of passive good, can have no great latitude. *Cogita quandiu eadem feceris; cibus, somnus, ludus per hunc circulum curritur; mori velle non tantum fortis, aut miser, aut prudens, sed etiam fastidiosus potest*. But in enterprizes, pursuits, and purposes of life, there is much variety, whereof men are sensible with pleasure in their inceptions, progressions, recoils, re-integrations, approaches and attainings to their ends. So as it was well said, *Vita sine proposito languida et vaga est*. Neither hath this active good any identity with the good of society, though in some case it hath an incidence into it: for although it do many times bring forth acts of beneficence, yet it is with a respect private to a man's own power, glory, amplification, continuance; as appeareth plainly, when it findeth a contrary subject. For that gigantic state of mind which possesseth the troublers of the world, such as was Lucius Sylla, and infinite other in smaller model, who would have all men happy or unhappy as they were their friends or enemies, and would give form to the world according to their own humours (which is the true theomachy) pretendeth and aspirerth to active good, though it recedeth farthest from good of society, which we have determined to be the greater.

To resume passive good, it receiveth a subdivision of conservative and perfective. For let us take a brief review of that which we have said; we have spoken first of the good of society, the intention whereof embraceth the form of human nature, whereof we are members and portions, and not our own proper and individual form; we have spoken of active good, and supposed it as a part of private and particular good. And rightly, for there is impressed upon all things a triple desire or appetite proceeding from love to themselves; one of preserving and continuing their form; another of advancing and perfecting their form; and a third of multiplying and extending their form upon other things; whereof the multiplying or signature of it upon other things, is that which we handled by the name of active good. So as there remaineth the conserving of it, and perfecting or raising of it; which latter is the highest degree of passive good. For to preserve in state is the less, to preserve with advancement is the greater. So in man,

*Ignis est illis vigor, et coelestis origo.*

His



His approach, or assumption to divine or angelical nature is the perfection of his form; the error or false imitation of which good, is that which is the remotest of human life, while men, upon the instinct of an advancement formal and essential, is carried to seek an advancement local. For as those which are sick, and find no remedy, do tumble up and down and change place, as if by a remove local they could obtain a remove internal: so is it with men in ambition, when fasting of the means to exalt their nature, they are in a perpetual situation to exalt their place. So then passive good is, as was said, either conservative or perfective.

To resume the good of conservation or comfort, which consisteth in the fruition of that which is agreeable to our natures; it seemeth to be the most pure and natural of pleasures, but yet the softest and the lowest. And this also receiveth a difference, which hath neither been well judged of, nor well inquired. For the good of fruition or contentment, is placed either in the sincerests of the fruition, or in the quickness and vigour of it: the one superinduced by equality, the other by vicissitude; the one having less mixture of evil, the other more impression of good. Whether of these is the greater good, is a question controverted; but whether man's nature may not be capable of both, is a question not inquired.

The former question being debated between Socrates and a sophist, Socrates placing felicity in an equal and constant peace of mind, and the sophist in much desiring and much enjoying, they fell from argument to ill words: the sophist saying that Socrates's felicity was the felicity of a block or stone, and Socrates saying that the sophist's felicity was the felicity of one that had the itch, who did nothing but itch and scratch. And both these opinions do not want their supports: for the opinion of Socrates is much upheld by the general consent even of the Epicures themselves, that virtue beareth a great part in felicity: and if so, certain it is, that virtue hath more use in clearing perturbations, than in compassing desires. The sophist's opinion is much favoured by the assertion we last spake of, that good of advancement is greater than good of simple preservation; because every obtaining a desire hath a shew of advancement, as motion though in a circle hath a shew of progression.

But the second question, decided the true way, maketh the former superfluous: for can it be doubted but that there are some who take more pleasure in enjoying pleasures, than some other, and yet nevertheless are less troubled with the joys or leaving of them; so as this same, *Non uti, ut non appetas; non appetere, ut non metuas; sunt animi pusilli et dissidentis*. And it seemeth to me that most of the doctrines of the philosophers are more fearful and cautionary than the nature of things requireth: so have they entreated the fear of death in offering to cure it; for when they would have a man's whole life to be but a discipline or preparation to die, they must needs make men think that it is a terrible enemy against whom there is no end of preparing. Better saith the poet,

*Qui finem vitae extremum inter munera ponat*

*Naturae:*

So have they sought to make mens minds too uniform and harmonical, by not breaking them sufficiently to contrary motions: the reason whereof I suppose to be, because they themselves were men dedicated to a private, free, and unapplied course of life. For as we see, upon the lute or like instrument, a ground, though it be sweet and have shew of many changes, yet breaketh not the hand to such strange and hard stops and passages, as a set song or voluntary: much after the same manner was the diversity between a philosophical and a civil life. And therefore men are to imitate the wisdom of jewellers, who if there be a grain, or a cloud, or an ice which may be ground forth without taking too much of the stone, they help it; but if it should lessen and abate the stone too much, they will not meddle with it; so ought men so to procure serenity, as they destroy not magnanimity.

Having therefore deduced the good of man, which is private and particular, as far as seemeth fit, we will now return to that good of man which respecteth and beholdeth Society, which we may term duty; because the term of duty is more proper to a mind well framed and disposed towards others, as the term of virtue is applied to a mind well formed and composed in itself; though neither can a man



understand virtue without some relation to society, nor duty without an inward disposition. This part may seem at first to pertain to science civil and polittick, but not if it be well observed; for it concerneth the regiment and government of every man over himself, and not over others. And as in architecture the direction of the framing the posts, beams, and other parts of building, is not the same with the manner of joining them and erecting the building; and in mechanicals, the direction how to frame an instrument or engine, is not the same with the manner of setting it on work and employing it; and yet nevertheless in expressing of the one you incidently exprets the aptness towards the other: so the doctrine of conjugation of men in society differeth from that of their conformity thereunto.

This part of duty is subdivided into two parts; the common duty of every man as a man or member of a state, the other the respective or special duty of every man in his profession, vocation, and place. The first of these is extant and well laboured, as hath been said. The second likewise I may report rather dispersed, than deficient; which manner of dispersed writing in this kind of argument I acknowledge to be best: for who can take upon him to write of the proper duty, virtue, challenge, and right of every several vocation, profession, and place? For although sometimes a looker on may see more than a gamester, and there be a proverb more arrogant than sound, "That the vale best discovereth the hill;" yet there is small doubt but that men can write best, and most really and materially in their own professions; and that the writing of speculative men of active matter, for the most part, doth seem to men of experience, as Phormio's argument of the wars seemed to Hannibal, to be but dreams and dotage. Only there is one vice which accompanieth them that write in their own professions, that they magnify them in excess; but generally it were to be wished (as that which would make learning indeed solid and fruitful) that active men would or could become writers.

In which I cannot but mention, *benoni's causa*, your majesty's excellent book touching the duty of a king, a work richly compounded of divinity, morality, and policy, with great asperison of all other arts; and being in mine opinion one of the most sound and healthful writings that I have read, not distempered in the heat of invention, nor in the coldness of negligence; not sick of business, as those are who lose themselves in their order, nor of convulsions, as those which cramp in matters impertinent; not favouring of perfumes and paintings, as those do who seek to please the reader more than nature beareth; and chiefly well disposed in the spirits thereof, being agreeable to truth and apt for action, and far removed from that natural infirmity whereunto I noted those that write in their own professions to be subject, which is, that they exalt it above measure: for your majesty hath truly described, not a king of Assyria, or Persia, in their extern glory, but a Moses, or a David, pastors of their people. Neither can I ever lose out of my remembrance, what I heard your majesty in the same sacred spirit of government deliver in a great cause of judicature, which was, "That kings ruled by their laws as God did by the laws of nature, and ought as rarely to put in use their supreme prerogative, as God doth his power of working miracles." And yet notwithstanding, in your book of a free monarchy, you do well give men to understand, that you know the plenitude of the power and right of a king, as well as the circle of his office and duty. Thus have I presumed to alledge this excellent writing of your majesty, as a prime or eminent example of Tractates concerning special and respective duties, wherein I should have said as much if it had been written a thousand years since: neither am I moved with certain courtly decencies, which esteem it flattery to praise in presence; no, it is flattery to praise in absence, that is, when either the virtue is absent, or the occasion is absent, and so the praise is not natural but forced, either in truth or in time. But let Cicero be read in his oration *pro Marcello*, which is nothing but an excellent table of Caesar's virtue, and made to his face; besides the example of many other excellent persons wiser a great deal than such observers, and we will never doubt, upon a full occasion, to give just praises to present or absent.

But to return, there belongeth farther to the handling of this part, touching the duties of professions and vocations, a relative or opposite touching the frauds, cautions, impostures, and vices of every profession, which hath been likewise handled.



But how? Rather in a satire and cynically, than seriously and wisely; for men have rather sought by wit to deride and traduce much of that which is good in professions, than with judgment to discover and sever that which is corrupt. For, as Solomon saith, he that cometh to seek after knowledge with a mind to scorn and censure, shall be sure to find matter for his humour, but no matter for his instruction: *Quaerenti derisori scientiam, ipsa se abscondit: sed studio sit obvicium.*

*De caute-  
his et malis  
artibus.*

But the managing of this argument with integrity and truth, which I note as deficient, seemeth to me to be one of the best fortifications for honesty and virtue that can be planted. For, as the fable goeth of the basilisk, that if he see you first, you die for it; but if you see him first, he dieth: so is it with deceits and evil arts, which, if they be first espied, lose their life; but if they prevent, they indanger. So that we are much beholden to Machiavel, and others, that write what men do, and not what they ought to do: for it is not possible to join serpentine wisdom with the columbine innocency, except men know exactly all the conditions of the serpent; his baseness and going upon his belly, his volubility and lubricity, his envy and sting, and the rest; that is, all forms and natures of evil: for without this, virtue lieth open and unfenced. Nay, an honest man can do no good upon those that are wicked, to reclaim them, without the help of the knowledge of evil: for men of corrupted minds presuppose that honesty groweth out of simplicity of manners, and believing of preachers, schoolmasters, and mens exterior language. So as, except you can make them perceive that you know the utmost reaches of their own corrupt opinions, they despite all morality; *Non recipit sultus verba prudentiae, nisi ea dixeris, quae versantur in corde eius.*

Unto this part touching respective duty doth also appertain the duties between husband and wife, parent and child, master and servant: so likewise the laws of friendship and gratitude, the civil bond of companies, colleges, and politick bodies, of neighbourhood, and all other proportionate duties; not as they are parts of government and society, but as to the framing of the mind of particular persons.

The knowledge concerning good respecting society doth handle it also not simply alone, but comparatively, whereunto belongeth the weighing of duties between person and person, case and case, particular and publick: as we see in the proceeding of Lucius Brutus against his own sons, which was so much extolled; yet what was said?

*Infelix, utcumque ferent ea fata minores.*

So the case was doubtful, and had opinion on both sides. Again, we see when M. Brutus and Cassius invited to a supper, certain whose opinions they meant to feel, whether they were fit to be made their associates, and cast forth the question touching the killing of a tyrant being an usurper, they were divided in opinion, some holding that servitude was the extreme of evils, and others that tyranny was better than a civil war; and a number of the like cases there are of comparative duty: amongst which that of all others is the most frequent, where the question is of a great deal of good to ensue of a small injustice, which Jason of Thessalia determined against the truth: *Aliqua sunt injusse facienda, ut multa jusse fieri possint.* But the reply is good, *Auctorem praesentis justitiae habes, sponsorem futurae non habes*; men must pursue things which are just in present, and leave the future to the divine providence. So then we pass on from this general part touching the exemplar and description of good.

*De cultura  
animi.*

Now therefore that we have spoken of this fruit of life, it remaineth to speak of the husbandry that belongeth thereunto, without which part the former seemeth to be no better than a fair image, or *statua*, which is beautiful to contemplate, but is without life and motion: whereunto Aristotle himself subscribeth in these words, *Necesse est scilicet de virtute dicere, et quid sit, et ex quibus gignatur. Inutile enim fere fuerit, virtutem quidem nosse, acquirendae autem ejus modos et vias ignorare: non enim de virtute tantum, qua specie sit, quaerendum est, sed et quomodo sui copiam faciat; utrumque enim volumus, et rem ipsam nosse et ejus compotes fieri: hoc autem ex voto non succedet, nisi sciamus et ex quibus et quomodo.* In such full words and with such iteration doth he inculcate this part: so saith Cicero in great commendation of Cato the second, that he had applied himself to philosophy,



*non ita disputandi causa, sed ita vivendi.* And although the neglect of our times, wherein few men do hold any consultations touching the reformation of their life (as Seneca excellently saith, *De partibus vitæ quisque deliberat, de summa nemo*) may make this part seem superfluous; yet I must conclude with that aphorism of Hippocrates, *Qui gravi morbo correpti dolores non sentiunt, iis mens aegrotat*; they need medicine not only to assuage the disease, but to awake the sense. And if it be said, that the cure of mens minds belongeth to sacred divinity, it is most true: but yet moral philosophy may be preferred unto her as a wise servant and humble handmaid. For as the Psalm saith, *that the eyes of the handmaid look perpetually towards the mistress*, and yet no doubt many things are left to the discretion of the handmaid, to discern of the mistress's will; so ought moral philosophy to give a constant attention to the doctrines of divinity, and yet so as it may yield of herself (within due limits) many sound and profitable directions.

This part therefore, because of the excellency thereof, I cannot but find exceeding strange that it is not reduced to written inquiry, the rather because it consisteth of much matter, wherein both speech and action is often convertant, and such wherein the common talk of men (which is rare, but yet cometh sometimes to pass) is wiser than their books. It is reasonable therefore that we propound it in the more particularity, both for the worthiness, and because we may acquit ourselves for reporting it deficient, which seemeth almost incredible, and is otherwise conceived and presupposed by those themselves that have written. We will therefore enumerate some heads or points thereof, that it may appear the better what it is, and whether it be extant.

First therefore, in this, as in all things which are practical, we ought to cast up our account, what is in our power, and what not; for the one may be dealt with by way of alteration, but the other by way of application only. The husbandman cannot command, neither the nature of the earth, nor the seasons of the weather, no more can the physician the constitution of the patient, nor the variety of accidents. So in the culture and cure of the mind of man, two things are without our command; points of nature, and points of fortune: for to the basis of the one, and the conditions of the other, our work is limited and tied. In these things therefore, it is left unto us to proceed by application.

*Vincenda est omnis fortuna ferendo:*

and so likewise,

*Vincenda est omnis natura ferendo.*

But when that we speak of suffering, we do not speak of a dull and neglected suffering, but of a wise and industrious suffering, which draweth and contriveth use and advantage out of that which seemeth adverse and contrary, which is that properly which we call accommodating or applying. Now the wisdom of application resteth principally in the exact and distinct knowledge of the precedent state or disposition, unto which we do apply; for we cannot fit a garment, except we first take measure of the body.

So then the first article of this knowledge is to set down sound and true distributions, and descriptions of the several characters and tempers of mens natures and dispositions, specially having regard to those differences which are most radical, in being the fountains and causes of the rest, or most frequent in concurrence or commixture; wherein it is not the handling of a few of them in passage, the better to describe the mediocrities of virtues, that can satisfy this intention: for if it deserve to be considered, "that there are minds which are proportioned to great matters, "and others to small" (which Aristotle handleth, or ought to have handled by the name of magnanimity) doth it not deserve as well to be considered, "that "there are minds proportioned to intend many matters, and others to few?" So that some can divide themselves, others can perchance do exactly well, but it must be but in few things at once; and so there cometh to be a narrowness of mind, as well as a pusillanimity. And again, "that some minds are proportioned "to that which may be dispatched at once, or within a short return of time; "others to that which begins afar off, and is to be won with length of pursuit,"

So that there may be fitly said to be a longanimity, which is commonly also ascribed

*Jam tum tentitque fovetque.*



to God, as a magnanimity. So farther deserved it to be considered by Aristotle, "that there is a disposition in conversation (supposing it in things which do in no sort touch or concern a man's self) to sooth and please; and a disposition contrary, to contradict and cross;" and deserveth it not much better to be considered, "that there is a disposition, not in conversation or talk, but in matter of more serious nature (and supposing it still in things merely indifferent) to take pleasure in the good of another, and a disposition contrariwise, to take dislike "at the good of another?" which is that properly which we call good-nature or ill-nature, benignity or malignity. And therefore I cannot sufficiently marvel, that this part of knowledge, touching the several characters of natures and dispositions, should be omitted both in morality and policy, considering it is of so great ministry and suppediation to them both. A man shall find in the traditions of astrology some pretty and apt divisions of mens natures, according to the predominances of the planets; lovers of quiet, lovers of action, lovers of victory, lovers of honour, lovers of pleasure, lovers of arts, lovers of change, and so forth. A man shall find in the wisest sort of these relations, which the Italians make touching conclaves, the natures of the several cardinals, handsomely and lively painted forth; a man shall meet with, in every day's conference, the denominations of sensitive, dry, formal, real, humorous, certain, *buono di prima impressione, buono di ultima impressione*, and the like: and yet nevertheless this kind of observations wandereth in words, but is not fixed in inquiry. For the distinctions are found (many of them) but we conclude no precepts upon them: wherein our fault is the greater, because both history, poetry, and daily experience, are as goodly fields where these observations grow; whereof we make a few poesies to hold in our hands, but no man bringeth the into the confessional, that receipts might be made of them for the use of life.

Of much like kind are those impressions of nature, which are imposed upon the mind by the sex, by the age, by the region, by health and sickness, by beauty and deformity, and the like, which are inherent, and not extern; and again, those which are caused by extern fortune: as sovereignty, nobility, obscure birth, riches, want, magistracy, privateness, prosperity, adversity, constant fortune, variable fortune, rising *per saltum*, *per gradus*, and the like. And therefore we see that Plautus maketh it a wonder to see an old man beneficent, *benignitas huius ut adolescentuli est*. St. Paul concludeth, that severity of discipline was to be used to the Cretans, *Increpa eos dure*, upon the disposition of their country, *Cretenses semper mendaces, malae bestiae, ventres pigri*. Sallust noteth, that it is usual with kings to desire contradictions; *Sed plerumque regiae voluntates, ut vehementes sunt, sic mobiles, saepeque ipsae sibi adversae*. Tacitus observeth, how rarely raising of the fortune mendeth the disposition, *Solus Vespasianus mutatus in melius*. Pindarus maketh an observation, that great and sudden fortune for the most part defeateth men, *Qui magnam felicitatem concipere non possunt*. So the Psalm sheweth it is more easy to keep a measure in the enjoying of fortune, than in the encrease of fortune: *Divitiae si affluant, nolite cor appondere*. These observations, and the like, I deny not but are touched a little by Aristotle, as in passage, in his rhetoricks, and are handled in some scattered discourses; but they were never incorporate into moral philosophy, to which they do essentially appertain; as the knowledge of the diversity of grounds and moulds doth to agriculture, and the knowledge of the diversity of complexions and constitutions doth to the physician; except we mean to follow the indiscretion of empiricks, which minister the same medicines to all patients.

Another article of this knowledge, is the inquiry touching the affections: for as in medicining of the body, it is in order first to know the divers complexions and constitutions; secondly, the diseases; and lastly, the cures: so in medicining of the mind, after knowledge of the divers characters of mens natures, it followeth, in order, to know the diseases and infirmities of the mind, which are no other than the perturbations and distempers of the affections. For as the ancient politicians in popular estates were wont to compare the people to the sea, and the orators to the winds, because as the sea would of itself be calm and quiet, if the winds did not move and trouble it; so the people would be peaceable and tractable if the seditious orators did not set them in working and agitation: so it may be fitly



fully said, that the mind in the nature thereof would be temperate and stay'd, if the affections, as winds, did not put it into tumult and perturbation. And here again I find strange as before, that Aristotle should have written divers volumes of ethicks, and never handled the affections, which is the principal subject thereof; and yet in his rhetoricks, where they are considered but collaterally, and in a second degree (as they may be moved by speech) he findeth place for them, and handleth them well for the quantity; but where their true place is, he pretermitteth them. For it is not his disputations about pleasure and pain that can satisfy this inquiry, no more than he that should generally handle the nature of light, can be said to handle the nature of colours; for pleasure and pain are to the particular affections, as light is to particular colours. Better travels, I suppose, had the Stoicks taken in this argument, as far as I can gather by that which we have at second hand. But yet, it is like, it was after their manner, rather in subtilty of definitions (which, in a subject of this nature, are but curiosities) than in active and ample descriptions and observations. So likewise I find some particular writings of an elegant nature, touching some of the affections; as of anger, of comfort upon adverse accidents, of tenderness of countenance, and other. But the poets and writers of histories are the best doctors of this knowledge, where we may find painted forth with great life, how affections are kindled and incited; and how pacified and restrained; and how again contained from act, and farther degree; how they disclose themselves; how they work; how they vary; how they gather and fortify; how they are inwrapped one within another; and how they do fight and encounter one with another; and other the like particularities. Amongst the which, this last is of special use in moral and civil matters: how, I say, to set affection against affection, and to master one by another, even as we use to hunt beast with beast, and fly bird with bird, which otherwise percase we could not so easily recover: upon which foundation is erected that excellent use of *praemium* and *poena*, whereby civil states consist, employing the predominant affections of fear and hope, for the suppressing and bridling the rest. For as in the government of states, it is sometimes necessary to bridle one faction with another, so it is in the government within.

Now come we to those points which are within our own command, and have force and operation upon the mind, to affect the will and appetite, and to alter manners: wherein they ought to have handled custom, exercise, habit, education, example, imitation, emulation, company, friends, praise, reproof, exhortation, fame, laws, books, studies; these as they have determinate use in moralities, from these the mind suffereth, and of these are such receipts and regiments compounded and described, as may serve to recover or preserve the health and good estate of the mind, as far as pertaineth to human medicine; of which number we will insist upon some one or two, as an example of the rest, because it were too long to prosecute all; and therefore we do resume custom and habit to speak of.

The opinion of Aristotle seemeth to me a negligent opinion, that of those things which consist by nature, nothing can be changed by custom; using for example, that if a stone be thrown ten thousand times up, it will not learn to ascend, and that by often seeing or hearing, we do not learn to hear or see the better. For though this principle be true in things wherein nature is peremptory (the reason whereof we cannot now stand to discuss) yet it is otherwise in things wherein nature admitteth a latitude. For he might see that a strait glove will come more easily on with use; and that a wand will by use bend otherwise than it grew; and that by use of the voice we speak louder and stronger; and that by use of enduring heat or cold, we endure it the better, and the like: which latter sort have a nearer resemblance unto that subject of manners he handleth, than those instances which he alledgeth. But allowing his conclusion, that virtues and vices consist in habit, he ought so much the more to have taught the manner of superinducing that habit: for there be many precepts of the wise ordering the exercises of the mind, as there is of ordering the exercises of the body, whereof we will recite a few.

The first shall be, that we beware we take not at the first either too high a  
Vol. I. Z strain,



strain, or too weak : for if too high in a diffident nature you discourage ; in a confident nature you breed an opinion of facility, and so a sloth ; and in all natures you breed a farther expectation than can hold out, and so an insatisfaction in the end : if too weak of the other side, you may not look to perform and overcome any great task.

Another precept is, to practise all things chiefly at two several times, the one when the mind is best disposed, the other when it is worst disposed ; that by the one you may gain a great step, by the other you may work out the knots and stonds of the mind, and make the middle times the more easy and pleasant.

Another precept is that which Aristotle mentioneth by the way, which is, to bear ever towards the contrary extreme of that whereunto we are by nature inclined : like unto the rowing against the stream, or making a wand straight, by binding him contrary to his natural crookedness.

Another precept is, that the mind is brought to any thing better, and with more sweetness and happiness, if that whereunto you pretend be not first in the intention, but *tantum aliud agendo*, because of the natural hatred of the mind against necessity and constraint. Many other axioms there are touching the managing of exercise and custom ; which being so conducted, doth prove indeed another nature ; but being governed by chance, doth commonly prove but an ape of nature, and bringeth forth that which is lame and counterfeit.

So if we should handle books and studies, and what influence and operation they have upon manners, are there not divers precepts of great caution and direction appertaining thereunto ? Did not one of the fathers in great indignation call poesy *vinum daemonum*, because it increaseth temptations, perturbations, and vain opinions ? Is not the opinion of Aristotle worthy to be regarded, wherein he saith, “ That young men are no fit auditors of moral philosophy, because they are not settled from the boiling heat of their affections, nor attempered “ with time and experience ? ” And doth it not hereof come, that those excellent books and discourses of the ancient writers (whereby they have persuaded unto virtue most effectually, by representing her in state and majesty ; and popular opinions against virtue in their parasites coats, fit to be scorned and derided) are of so little effect towards honesty of life, because they are not read, and revolved by men in their mature and settled years, but confined almost to boys and beginners ? But is it not true also, that much less young men are fit auditors of matters of policy, till they have been thoroughly seasoned in religion and morality, lest their judgments be corrupted, and made apt to think that there are no true differences of things, but according to utility and fortune, as the verse describes it ?

*Prosperum et felix scelus virtus vocatur.*

And again,

*Ille crucem pretium sceleris tulit, hic diadema :*

which the poets do speak satirically, and in indignation on virtue's behalf : but books of policy do speak it seriously and positively ; for so it pleaseth Machiavel to say, “ that if Caesar had been overthrown, he would have been more odious “ than ever was Catiline : ” as if there had been no difference, but in fortune, between a very fury of lust and blood, and the most excellent spirit (his ambition reserved) of the world ? Again, is there not a caution likewise to be given of the doctrines of moralities themselves (some kinds of them) lest they make men too precise, arrogant, incompatible, as Cicero saith of Cato in *Marco Catone* : *Hæc bona, quæ videmus, divina et egregia, ipsius scitote esse propria : quæ nonnunquam requirimus, ea sunt omnia, non a natura, sed a magistro ?* Many other axioms and advices there are touching those proprieties and effects, which studies do infuse and instil into manners. And so likewise is there touching the use of all those other points, of company, fame, laws, and the rest, which we recited in the beginning in the doctrine of morality.

But there is a kind of culture of the mind that seemeth yet more accurate and elaborate than the rest, and is built upon this ground : that the minds of all men are sometimes in a state more perfect, and at other times in a state more depraved. The purpose therefore of this practise is, to fix and cherish the good hours,



hours of the mind, and to obliterate and take forth the evil. The fixing of the good hath been practised by two means, vows or constant resolutions, and observances or exercises; which are not to be regarded so much in themselves, as because they keep the mind in continual obedience. The obliteration of the evil hath been practised by two means, some kind of redemption or expiation of that which is past, and an inception or account *de novo*, for the time to come: but this part seemeth sacred and religious, and justly; for all good moral philosophy (as was said) is but an handmaid to religion.

Wherefore we will conclude with that last point, which is of all other means the most compendious and summary; and, again, the most noble and effectual to the reducing of the mind unto virtue and good estate; which is, the electing, and propounding unto a man's self, good and virtuous ends of his life, such as may be in a reasonable sort within his compass to attain. For if these two things be supposed, that a man set before him honest and good ends, and again that he be resolute, constant, and true unto them; it will follow, that he shall mould himself into all virtue at once. And this is indeed like the work of nature, whereas the other course is like the work of the hand: for as when a carver makes an image, he shapes only that part whereupon he worketh, as if he be upon the face, that part which shall be the body is but a rude stone still, till such time as he comes to it: but, contrariwise, when nature makes a flower; or living creature, she formeth rudiments of all the parts at one time: so in obtaining virtue by habit, while a man practise temperance, he doth not profit much to fortitude, nor the like: but when he dedicateth and applyeth himself to good ends, look, what virtue soever the pursuit and passage towards those ends doth commend unto him, he is invested of a precedent disposition to conform himself thereunto. Which state of mind Aristotle doth excellently express himself, that it ought not to be called virtuous, but divine: his words are these; *Immanitati autem consentaneum est, opponere eam, quae supra humanitatem est, heroicam sive divinam virtutem. And a little after, Nam ut feræ neque vitium neque virtus est, sic neque Dei. Sed hic quidem status alius quiddam virtute est, ille absurdum quiddam a vitio.* And therefore we may see what celsitude of honour Plinius Secundus attributeth to Trajan in his funeral oration; where he said, "that men " needed to make no other prayers to the gods, but that they would continue " as good lords to them, as Trajan had been;" as if he had not been only an imitation of divine nature, but a pattern of it. But these be heathen and profane passages, having but a shadow of that divine state of mind, which religion and the holy faith doth conduct men unto, by imprinting upon their souls charity, which is excellently called *the bond of perfection*, because it comprehendeth and fasteneth all virtues together. And as it is elegantly said by Menander, of vain love, which is but a false imitation of divine love, *Amor melior sibi ipsa laevo ad humanam vitam*, that love teacheth a man to carry himself better than the sophist or preceptor, which he calleth left-handed, because, with all his rules and preceptions, he cannot form a man so dexterously, nor with that facility, to prize himself, and govern himself, as love can do. So certainly if a man's mind be truly enflamed with charity, it doth work him suddenly into greater perfection than all the doctrine of morality can do, which is but a sophist in comparison of the other. Nay farther, as Xenophon observed truly, that all other affections, though they raise the mind, yet they do it by distorting, and uncomeliness of ecstasies or excesses; but only love doth exalt the mind, and nevertheless at the same instant doth settle and compose it: so in all other excellencies, though they advance nature, yet they are subject to excess. Only charity admitteth no excess; for so we see, by aspiring to be like God in power, the angels transgressed and fell; *Ascendam, et ero similis Altissimo*: by aspiring to be like God in knowledge, man transgressed and fell; *Eritis sicut Dei, scientes bonum et malum*: but by aspiring to a similitude of God in goodness, or love, neither man nor angel ever transgressed, or shall transgress. For unto that imitation we are called; *Diligite inimicos vestros, benefacite eis, qui oderunt vos, et orate pro persequentibus et calumniantibus vos, ut sitis filii Patris vestri, qui in coelis est, qui solem suum oriri facit super bonos et malos, et pluit super iustos et iniustos.*



*injussos.* So in the first platform of the divine nature itself, the heathen religion speaketh thus, *Optimus Maximus*; and the sacred Scriptures thus, *Misericordia eius super omnia opera eius.*

Wherefore I do conclude this part of moral knowledge, concerning the culture and regiment of the mind; wherein if any man, considering the parts thereof, which I have enumerated, do judge that my labour is but to collect into an art, or science, that which hath been pretermitted by others, as matters of common sense and experience, he judgeth well: but as Philocrates sported with Demosthenes, "You may not marvel, Athenians, that Demosthenes and I do differ, for he drinketh water, and I drink wine." And like as we read of an ancient parable of the two gates of sleep,

*Sunt geminae somni portae, quarum altera fertur*

*Cornea, qua veris facilis datur exitus umbris:*

*Alter a candenti perfracta nitens elephantis,*

*Sed falsa ad coelum mittunt insomnia manes.*

So if we put on sobriety and attention, we shall find it a sure maxim in knowledge, that the more pleasant liquor (of wine) is the more vaporous, and the braver gate of ivory sendeth forth the false dreams.

But we have now concluded that general part of human philosophy, which contemplateth man segregated, and as he consisteth of body and spirit. Wherein we may farther note, that there seemeth to be a relation or conformity between the good of the mind, and the good of the body. For as we divided the good of the body into health, beauty, strength, and pleasure; so the good of the mind, inquired in rational and moral knowledges, tendeth to this, to make the mind sound and without perturbation; beautiful and graced with decency; and strong and agile for all duties of life. These three, as in the body, so in the mind, seldom meet, and commonly sever. For it is easy to observe, that many have strength of wit and courage, but have neither health from perturbations, nor any beauty or decency in their doings: some again have an elegance and fineness of carriage, which have neither soundness of honesty, nor substance of sufficiency: and some again have honest and reformed minds, that can neither become themselves, nor manage business. And sometimes two of them meet, and rarely all three. As for pleasure, we have likewise determined, that the mind ought not to be reduced to stupid, but to retain pleasure; confined rather in the subject of it, than in the strength and vigour of it.

CIVIL Knowledge is conversant about a subject which of all others is most immersed in matter, and hardiest reduced to axiom. Nevertheless, as Cato the censor said, "that the Romans were like sheep, for that a man might better drive a flock of them, than one of them; for in a flock, if you could get but some few go right, the rest would follow:" so in that respect moral philosophy is more difficult than policy. Again, moral philosophy propoundeth to itself the framing of internal goodness; but civil knowledge requireth only an external goodness; for that as to society sufficeth. And therefore it cometh oft to pass that there be evil times in good governments: for so we find in the holy story, when the kings were good; yet it is added, *Sed adhuc populus non direxerat cor suum ad Dominum Deum patrum suorum.* Again; states, as great engines, move slowly, and are not so soon put out of frame: for as in Ægypt the seven good years sustained the seven bad; so governments for a time well grounded, do bear out errors following. But the resolution of particular persons is more suddenly subverted. These respects do somewhat qualify the extreme difficulty of civil knowledge.

This knowledge hath three parts, according to the three summary actions of society, which are, Conversation, Negotiation, and Government. For man seeketh in society comfort, use, and protection: and they be three wisdoms of divers natures, which do often sever; wisdom of behaviour, wisdom of business, and wisdom of state.

The wisdom of Conversation ought not to be over much affected, but much less despised: for it hath not only an honour in itself, but an influence also into business



business and government. The poet saith, *Nec vultu deservire verba tuo*. A man may destroy the force of his words with his countenance: so may he of his deeds, saith Cicero, recommending to his brother affability and easy access, *Nil interst habere ostium apertum, vultum clausum*. "It is nothing won to admit men with an open door, and to receive them with a shut and reserved countenance." So, we see, Atticus, before the first interview between Caesar and Cicero, the war depending, did seriously advise Cicero touching the composing and ordering of his countenance and gesture. And if the government of the countenance be of such effect, much more is that of the speech, and other carriage appertaining to conversation; the true model whereof seemeth to me well expressed by Livy, though not meant for this purpose; *Ne aut arrogans videar, aut obnoxius; quorum alterum est alienae libertatis oblit, alterum suae*: "The sum of behaviour is to retain a man's own dignity, without intruding upon the liberty of others." On the other side, if behaviour and outward carriage be intended too much, first it may pass into affectation, and then *Quid desorinus, quam senam in vitam transferre*, to act a man's life? But although it proceed not to that extreme, yet it consumeth time, and employeth the mind too much. And therefore as we use to advise young students from company keeping, by saying, *Amici, fures temporis*; so certainly the intending of the discipline of behaviour is a great thief of meditation. Again, such as are accomplished in that form of urbanity, please themselves in it, and seldom aspire to higher virtue; whereas those that have defect in it, do seek comeliness by reputation: for where reputation is, almost every thing becometh; but where that is not, it must be supplied by *punto's* and compliments. Again, there is no greater impediment of action, than an over-curious observance of decency, and the guide of decency, which is time and season. For as Solomon saith, *Qui respicit ad ventos, non seminat; et qui respicit ad nubes, non metet*: a man must make his opportunity as oft as find it. To conclude; behaviour seemeth to me as a garment of the mind, and to have the conditions of a garment. For it ought to be made in fashion; it ought not to be too curious; it ought to be shaped so as to set forth any good making of the mind, and hide any deformity; and above all, it ought not to be too strait, or restrained for exercise or motion. But this part of civil knowledge hath been elegantly handled, and therefore I cannot report it for deficient.

The wisdom touching Negotiation or Business hath not been hitherto collected De nego- into writing, to the great derogation of learning, and the professors of learning. tis geren- For from this root springeth chiefly that note or opinion, which by us is expressed in adage to this effect; that there is no great concurrence between learning and wisdom. For of the three wisdoms which we have set down to pertain to civil life, for wisdom of behaviour, it is by learned men for the most part despised, as an inferior to virtue, and an enemy to meditation; for wisdom of government, they acquit themselves well when they are called to it, but that happeneth to few: but for the wisdom of business, wherein man's life is most conversant, there be no books of it, except some few scattered advertisements, that have no proportion to the magnitude of this subject. For if books were written of this, as the other, I doubt not but learned men, with mean experience, would far excel men of long experience, without learning, and outshoot them in their own bow.

Neither needeth it at all to be doubted, that this knowledge should be so variable, as it falleth not under precept; for it is much less infinite than science of government, which, we see, is laboured, and in some part reduced. Of this wisdom, it seemeth, some of the ancient Romans, in the saddest and wisest times, were professors; for Cicero reporteth, that it was then in use for senators that had name and opinion for general wise men, as Coruncanus, Curius, Laelius, and many others, to walk at certain hours in the place, and to give audience to those that would use their advice; and that the particular citizens would resort unto them, and consult with them of the marriage of a daughter, or of the employing of a son, or of a purchase or bargain, or of an accusation, and every other occasion incident to man's life. So as there is a wisdom of counsel and



advice even in private cases, arising out of an universal insight into the affairs of the world; which is used indeed upon particular cases propounded, but is gathered by general observation of cases of like nature. For so we see in the book which Q. Cicero writeth to his brother, *De petitione consulatus* (being the only book of business, that I know, written by the ancients) although it concerned a particular action then on foot, yet the substance thereof consisteth of many wise and politick axioms, which contain not a temporary, but a perpetual direction in the case of popular elections. But chiefly we may see in those aphorisms which have place amongst divine writings, composed by Solomon the king, of whom the Scriptures testify, that his heart was as the sands of the sea, encompassing the world, and all worldly matters: we see, I say, not a few profound and excellent cautions, precepts, positions, extending to much variety of occasions; whereupon we will stay a while, offering to consideration some number of examples.

*Sed et cunctis sermionibus, qui dicuntur, ne accomodes aurem tuam, ne forte audias seruum tuum maledicentem tibi.*

Here is recommended the provident stay of inquiry of that which we would be loth to find; as it was judged great wisdom in Pompeius Magnus that he burned Sertorius's papers unperused.

*Vir sapiens, si cum stulto contenderit, seve irascatur, seve rideat, non inveniet requiem.*

Here is described the great disadvantage which a wise man hath in undertaking a lighter person than himself, which is such an engagement, as whether a man turn the matter to jest, or turn it to heat, or howsoever he change copy, he can no ways quit himself well of it.

*Qui delicate a pueritia nutriti servum suum, postea sentiet eum contumacem.*

Here is signified, that if a man begin too high a pitch in his favours, it doth commonly end in unkindness and unthankfulness.

*Vidisti virum velocem in opere suo, coram regibus habet, nec erit inter ignobiles.*

Here is observed, that of all virtues for rising to honour, quickness of dispatch is the best; for superiors many times love not to have those they employ, too deep or too sufficient, but ready and diligent.

*Vidi cunctos viventes, qui ambulat sub sole, cum adolescente secundo, qui conjungit pro eo.*

Here is expressed that which was noted by Sylla first, and after him by Tiberius; *Plures adorant solem orientem, quam occidentem vel meridianum.*

*Si spiritus potestatem habentis ascenderit super te, locum tuum ne dimiseris, quia curatio faciet cessare peccata maxima.*

Here caution is given, that upon displeasure, retiring is of all courses the unfittest; for a man leaveth things at worst, and depriveth himself of means to make them better.

*Erat civitas parva, et pauci in ea viri; venit contra eam rex magnus, et vadavit eam, instructisque munitiones per gym, et perfecta est obfidio; inventusque est in ea vir pauper et sapiens, et liberavit eam per sapientiam suam, et nullus deinceps recordatus est hominis illius pauperis.*

Here the corruption of states is set forth, that esteem not virtue or merit, longer than they have use of it.

*Mollis responsio frangit iram.*

Here is noted, that silence or rough answer exasperateth; but an answer present and temperate pacifieth.

*Iter pigrorum, quasi sepes spinarum.*

Here is lively represented how laborious sloth proveth in the end; for when things are deferred to the last instant, and nothing prepared before hand, every step findeth a briar or an impediment, which catcheth or stoppeth.

*Melior est finis orationis, quam principium.*

Here is taxed the vanity of formal speakers, that study more about prefaces and inducements, than upon the conclusions and issues of speech.

*Qui cognoscit in iudicio faciem, non bene facit; ille et pro buccella panis deseret veritatem.*

Here



Here is noted, that a judge were better be a briber, than a respecter of persons; for a corrupt judge offendeth not so lightly as a facile.

*Vir pauper calumnians pauperes, similis est imbri uebementi, in quo paratur fames.*

Here is expressed the extremity of necessitious extortions, figured in the ancient fable of the full and the hungry horse-leech.

*Fons turbatus pede, et vena corrupta, est iustus cadens coram impio.*

Here is noted that one judicial and exemplar iniquity in the face of the world, doth trouble the fountains of justice more, than many particular injuries passed over by connivance.

*Qui subtrahit aliquid a patre et a matre, et dicit hoc non esse peccatum, particeps est homicidii.*

Here is noted, that whereas men in wronging their best friends, use to extenuate their fault, as if they might presume or be bold upon them, it doth contrariwise indeed aggravate their fault, and turneth it from injury to impiety.

*Noli esse amicus homini iracundo, nec ambulato cum homine furioso.*

Here caution is given, that in the election of our friends we do principally avoid those which are impatient, as those that will espouse us to many factions and quarrels.

*Qui conturbat domum suam, possidebit ventum.*

Here is noted that in domestical separations and breaches, men do promise to themselves quieting of their mind and contentment, but still they are deceived of their expectation, and it turneth to wind.

*Filius sapiens laetificat patrem: filius vero stultus moestitia est matri suae.*

Here is distinguished, that fathers have most comfort of the good proof of their sons; but mothers have most discomfort of their ill proof, because women have little discerning of virtue, but of fortune.

*Qui celat delictum, quaerit amicitiam; sed qui altero sermone repetit, separat foederatos.*

Here caution is given, that reconciliation is better managed by an amnesty, and passing over that which is past, than by apologies and excusations.

*In omni opere bono erit abundantia; ubi autem verba sunt plurima, ibi frequenter egestas.*

Here is noted, that words and discourse abound most where there is idleness and want.

*Primus in sua causa iustus; sed venit altera pars, et inquirit in eum.*

Here is observed that in all causes the first tale possesseth much, in such sort, that the prejudice thereby wrought will be hardly removed, except some abuse or falsity in the information be detected.

*Verba bilinguis quasi simplicia, et ipsa perveniunt ad interiora ventris.*

Here is distinguished, that flattery and insinuation, which seemeth set and artificial, sinketh not far; but that entereth deep which hath shew of nature, liberty, and simplicity.

*Qui erudit deiserem, ipse sibi injuriam facit; et qui arguit impium, sibi maculam generat.*

Here caution is given how we tender reprehension to arrogant and scornful natures, whose manner is to esteem it for contumely, and accordingly to return it.

*Da sapienti occasionem, et addetur ei sapientia.*

Here is distinguished the wildom brought into habit, and that which is but verbal, and swimming only in conceit; for the one upon the occasion presented is quickened and redoubled, the other is amazed and confused.

*Quomodo in aquis resplendent vultus prospicientium, sic corda hominum manifesta sunt prudentibus.*

Here the mind of a wise man is compared to a glass, wherein the images of all diversity of natures and customs are represented, from which representation proceedeth that application.

*Qui sapit, innumeris moribus aptus erit.*

Thus have I staid somewhat longer upon these sentences politick of Solomon, than is agreeable to the proportion of an example, led with a desire to give authority to this part of knowledge which I noted as deficient, by so excellent a precedent;



precedent; and have also attended them with brief observations, such as to my understanding offer no violence to the sense, though I know they may be applied to a more divine use: but it is allowed even in divinity, that some interpretations, yea and some writings, have more of the eagle, than others; but taking them as instructions for life, they might have received large discourse, if I would have broken them and illustrated them by diducements and examples.

Neither was this in use only with the Hebrews, but it is generally to be found in the wisdom of the more ancient times; that as men found out any observation that they thought was good for life, they would gather it and express it in parable, or aphorism, or fable. But for fables, they were vicegerents and supplies, where examples failed: now that the times abound with history, the aim is better when the mark is alive. And therefore the form of writing, which of all others is the fittest for this variable argument of negotiation and occasions, is that which Machiavel chose wisely and aptly for government; namely, discourse upon histories or examples: for knowledge drawn freshly, and in our view, out of particulars, knoweth the way best to particulars again; and it hath much greater life for practice when the discourse attendeth upon the example, than when the example attendeth upon the discourse. For this is no point of order, as it seemeth at first, but of substance: for when the example is the ground, being set down in an history at large, it is set down with all circumstances, which may sometimes controul the discourse thereupon made, and sometimes supply it as a very pattern for action; whereas the examples alledged for the discourse's sake, are cited succinctly, and without particularity, and carry a servile aspect towards the discourse which they are brought in to make good.

But this difference is not amiss to be remembered, that as history of times is the best ground for discourse of government, such as Machiavel handleth, so history of lives is the most proper for discourse of business, because it is more conversant in private actions. Nay, there is a ground of discourse for this purpose sifter than them both, which is discourse upon letters; such as are wise and weighty, as many are of Cicero *ad Atticum*, and others. For letters have a great and more particular representation of business, than either chronicles or lives. Thus have we spoken both of the matter and form of this part of civil knowledge touching negotiation, which we note to be deficient.

But yet there is another part of this part, which differeth as much from that whereof we have spoken, as *sapere* and *sibi sapere*; the one moving as it were to the circumference, the other to the center: for there is a wisdom of counsel, and again there is a wisdom of pressing a man's own fortune, and they do sometimes meet, and often sever: for many are wise in their own ways that are weak for government or counsel; like ants, which is a wise creature for itself, but very hurtful for the garden. This wisdom the Romans did take much knowledge of: *Nam pol sapiens* (saith the comical poet) *singit fortunam sibi*; and it grew to an adage, *Faber quisque fortunae propriae*: and Livy attributeth it to Cato the first, *in hoc viro tanta vis animi et ingenii inerat, ut quocunque loco natus esset, sibi ipse fortunam facturus videretur*.

This conceit or position, if it be too much declared and professed, hath been thought a thing impolitic and unlucky, as was observed in Timotheus the Athenian; who having done many great services to the estate in his government, and giving an account thereof to the people, as the manner was, did conclude every particular with this clause, "and in this fortune had no part." And it came so to pass that he never prospered in any thing he took in hand afterwards; for this is too high and too arrogant, favouring of that which Ezekiel saith of Pharaoh, *Dicis, Fluvius est meus, et ego feci memetipsum*: or of that which another prophet speaketh, *that men offer sacrifices to their nets and snares*; and that which the poet expresseth,

*Dextra mihi Deus, et telum, quod missile libro,*

*Nunc adiunt:*

For these confidences were ever unhallowed, and unblest: and therefore those that were great politicians indeed ever ascribed their successes to their felicity, and not to their skill or virtue. For so Sylla surnamed himself *Felix* not *Magnus*: so Cæsar said to the master of the ship, *Cæsarem portas et fortunam ejus*.



But yet nevertheless these positions, *Faber quisque fortunæ suæ; Sapiens dominabitur æstis: Inicia virtuti nulla est via*, and the like, being taken and used as spurs to industry, and not as stirrups to insolency, rather for resolution than for presumption or outward declaration, have been ever thought sound and good, and are (no question) imprinted in the greatest minds, who are so sensible of this opinion, as they can scarce contain it within: As we see in Augustus Cæsar (who was rather diverse from his uncle, than inferior in virtue) how when he died, he desired his friends about him to give him a *Plaudite*, as if he were content to himself that he had play'd his part well upon the stage. This part of knowledge we do report also as deficient; not but that it is practised too much, but it hath not been reduced to writing. And therefore lest it should seem to any that it is not comprehensible by axiom, it is requisite, as we did in the former, that we set down some heads or passages of it.

Wherein it may appear at the first a new and unwonted argument to teach men how to raise and make their fortune: a doctrine, wherein every man perchance will be ready to yield himself a disciple till he seeth difficulty; for fortune layeth as heavy impositions as virtue, and it is as hard and severe a thing to be a true politician, as to be truly moral. But the handling thereof concerneth learning greatly, both in honour and in substance: In honour, because pragmatical men may not go away with an opinion that learning is like a lark, that can mount, and sing, and please herself, and nothing else; but may know that she holdeth as well of the hawk, that can soar aloft, and can also descend and strike upon the prey. In substance, because it is the perfect law of enquiry of truth, "that nothing be in the globe of matter, which should not be likewise in the globe of crystal, or form;" that is, that there be not any thing in being and action, which should not be drawn and collected into contemplation and doctrine. Neither doth learning admire or esteem of this architecture of fortune, otherwise than as of an inferior work: for no man's fortune can be an end worthy of his being, and many times the worthiest men do abandon their fortune willingly for better respects; but nevertheless fortune, as an organ of virtue and merit, deserveth the consideration.

First, therefore, the precept which I conceive to be most summary towards the prevailing in fortune, is to obtain that window which Momus did require; who, seeing in the frame of man's heart such angles and recesses, found fault there was not a window to look into them: that is, to procure good informations of particulars touching persons, their natures, their desires and ends, their customs and fashions, their helps and advantages, and whereby they chiefly stand; so again their weaknesses and disadvantages, and where they lie most open and obnoxious; their friends, factions, and dependencies; and again their opposites, enviers, competitors, their moods and times, *Sola viri molles aditus et tempora noras*; their principles, rules, and observations, and the like: and this not only of persons, but of actions; what are on foot from time to time, and how they are conducted, favoured, opposed, and how they import, and the like. For the knowledge of present actions is not only material in itself, but without it also the knowledge of persons is very erroneous; for men change with the actions, and whilst they are in pursuit they are one, and when they return to their nature they are another. These informations of particulars, touching persons and actions, are as the minor propositions in every active syllogism, for no excellency of observations (which are as the major propositions) can suffice to ground a conclusion, if there be error and mistaking in the minors.

That this knowledge is possible, Solomon is our surety, who saith, *Consilium in corde viri tanquam aqua profunda, sed vir prudens exhaustiet illud*: And although the knowledge itself falleth not under precept, because it is of individuals, yet the instructions for the obtaining of it may.

We will begin therefore with this precept, according to the ancient opinion, that the sinews of wisdom are slowness of belief and distrust: that more trust be given to countenances and deeds, than to words; and in words, rather to sudden passages and surprized words, than to set and purposed words. Neither let that be feared which is said, *fronti nulla fides*; which is meant of a general outward behaviour, and not of the private and subtle motions and labours of the countenance



and gesture; which, as Q. Cicero elegantly saith, is *animi janua*, “the gate of the mind.” None more close than Tiberius, and yet Tacitus saith of Gallus, *Et enim cultu offensionem coniecitaverat*. So again, noting the differing character and manner of his commending Germanicus and Drusus in the senate, he saith, touching his fashion wherein he carried his speech of Germanicus, thus: *Magis in speciem adornatis verbis, quam ut penitus sentire videretur*; but of Drusus thus, *Paucioribus, sed intentior, et suda oratione*: and in another place, speaking of his character of speech when he did any thing that was gracious and popular, he saith, that in other things he was *velut elusivum verborum*: but then again, *Solutius vero loquebatur quando subvenerit*. So that there is no such artificer of dissimulation, nor no such commanded countenance (*cultus iustus*) that can sever from a feigned tale some of these fashions, either a more slight and careless fashion, or more set and formal, or more tedious and wandering, or coming from a man more drily and hardly.

Neither are deeds such assured pledges, as that they may be trusted without a judicious consideration of their magnitude and nature: *Fraus sibi in parvis solum praeservuit, ut majore emolumento fallat*: and the Italian thinketh himself upon the point to be bought and sold, when he is better used than he was wont to be, without manifest cause. For small favours, they do but lull men asleep, both as to caution and as to industry, and are as Demosthenes calleth them, *Alimenta se cordiae*. So again we see how false the nature of some deeds are, in that particular which Mutianus practised upon Antonius Primus, upon that hollow and unfaithful reconciliation which was made between them: whereupon Mutianus advanced many of the friends of Antonius: *simul amicis ejus praefecturas et tribunatus largiunt*: wherein, under pretence to strengthen him, he did desolate him, and won from him his dependances.

As for words (though they be, like waters to physicians, full of flattery and uncertainty) yet they are not to be despised, specially with the advantage of passion and affection. For so we see Tiberius upon a stinging and incensing speech of Agrippina, came a step forth of his dissimulation, when he said, “you are hurt, because you do not reign;” of which Tacitus saith, *Audita haec raram occultis pectoris vocem elicere, correptamque Græco versu admonuit: ideo laedi, quia non regnaret*. And therefore the poet doth elegantly call passions, tortures, that urge men to confess their secrets:

*Vino tortus et ira.*

And experience sheweth, there are few men so true to themselves, and so settled, but that, sometimes upon heat, sometimes upon bravery, sometimes upon kindness, sometimes upon trouble of mind and weakness, they open themselves; specially if they be put to it with a counter-dissimulation, according to the proverb of Spain, *Di mentira, y sacaras verdad*, “tell a lye, and find a truth.”

As for the knowing of men, which is at second hand from reports: mens weakness and faults are best known from their enemies, their virtues and abilities from their friends, their customs and times from their servants, their conceits and opinions from their familiar friends, with whom they discourse most. General fame is light, and the opinions conceived by superiors or equals are deceitful; for to such, men are more masked, *Verior fama e domesticis emanat*.

But the soundest disclosing and expounding of men is, by their natures and ends; wherein the weakest sort of men are best interpreted by their natures, and the wisest by their ends. For it was both pleasantly and wisely said (though I think very untruly) by a nuncio of the pope, returning from a certain nation, where he served as lieger; whose opinion being asked touching the appointment of one to go in his place, he wished that in any case they did not send one that was too wise; because no very wise man would ever imagine, what they in that country were like to do: and certainly it is an error frequent for men to shoot over, and to suppose deeper ends, and more compass reaches than are: the Italian proverb being elegant, and for the most part true,

*Di danari, di sesso, e di fede,*

*C'è nè manco che non credi:*

“There is commonly less money, less wisdom, and less good faith, than men do account upon.”



But princes, upon a far other reason, are best interpreted by their natures, and private persons by their ends: for princes being at the top of human desires, they have for the most part no particular ends whereto they aspire, by distance from which a man might take measure and scale of the rest of their actions and desires; which is one of the causes that maketh their hearts more inscrutable. Neither is it sufficient to inform ourselves in mens ends and natures of the variety of them only, but also of the predominancy, what humour reigneth most, and what end is principally sought. For so we see, when Tigellinus saw himself out-stripped by Petronius Turpilianus in Nero's humours of pleasures; *metus ejus rimatur*, he wrought upon Nero's fears, whereby he broke the other's neck.

But to all this part of inquiry, the most compendious way resteth in three things: the first, to have general acquaintance and inwardness with those which have general acquaintance, and look most into the world; and especially according to the diversity of business, and the diversity of persons, to have privacy and conversation with some one friend at least, which is perfect and well intelligenced in every several kind. The second is to keep a good mediocrity in liberty of speech and secrecy: in most things liberty, secrecy where it importeth; for liberty of speech inviteth and provoketh liberty to be used again, and so bringeth much to a man's knowledge; and secrecy, on the other side, induceth trust and inwardness. The last is the reducing of a man's self to this watchful and serene habit, as to make account and purpose, in every conference and action as well to observe as to act. For as Epictetus would have a philosopher in every particular action to say to himself, *Et hoc volo, et etiam institutum servare*: so a politick man in every thing should say to himself, *Et hoc volo, ac etiam aliquid addiscere*. I have stayed the longer upon this precept of obtaining good information; because it is a main part by itself, which answereth to all the rest. But above all things caution must be taken, that men have a good stay and hold of themselves, and that this much knowing do not draw on much meddling; for nothing is more unfortunate than light and rash intermeddling in many matters. So that this variety of knowledge tendeth in conclusion but only to this, to make a better and freer choice of those actions which may concern us, and to conduct them with the less error and the more dexterity.

The second precept concerning this knowledge, is for men to take good information touching their own persons, and well to understand themselves: knowing that, as St. James saith, though men look oft in a glass, yet they do suddenly forget themselves; wherein as the divine glass is the word of God, so the politick glass is the state of the world, or times wherein we live; in the which we are to behold ourselves.

For men ought to take an impartial view of their own abilities and virtues; and again of their wants and impediments; accounting these with the most; and those other with the least; and from this view and examination, to frame the considerations following.

First, to consider how the constitution of their nature sorteth with the general state of the times; which if they find agreeable and fit, then in all things to give themselves more scope and liberty; but if differing and dissonant, then in the whole course of their life to be more close, retired, and reserved: as we see in Tiberius, who was never seen at a play, and came not into the senate in twelve of his last years; whereas Augustus Cæsar lived ever in mens eyes, which Tacitus observeth: *Alia Tiberio morum via*.

Secondly, to consider how their nature sorteth with professions and courses of life, and accordingly to make election, if they be free; and, if engaged, to make the departure at the first opportunity, as we see was done by duke Valentine, that was designed by his father to a sacerdotal profession, but quitted it soon after in regard of his parts and inclination; being such nevertheless, as a man cannot tell well whether they were worse for a prince or for a priest.

Thirdly, to consider how they sort with those whom they are like to have competitors and concurrents, and to take that course wherein there is most solitude, and themselves like to be most eminent; as Julius Cæsar did, who at first was an orator or pleader; but when he saw the excellency of Cicero, Hortensius, Catu-

lus,



lus, and others, for eloquence, and saw there was no man of reputation for the wars but Pompeius, upon whom the state was forced to rely; he forsook his course begun toward a civil and popular greatness, and transferred his designs to a martial greatness.

Fourthly, in the choice of their friends and dependances, to proceed according to the composition of their own nature; as we may see in Cæsar, all whose friends and followers were men active and effectual, but not solemn, or of reputation.

Fifthly, to take special heed how they guide themselves by examples, in thinking they can do as they see others do; whereas perhaps their natures and carriages are far differing. In which error it seemeth Pompey was, of whom Cicero saith, that he was wont often to say, *Sylla potuit, ego non potero*? Wherein he was much abused, the natures and proceedings of himself and his example, being the unlikest in the world; the one being fierce, violent, and pressing the fact; the other solemn, and full of majesty and circumstance; and therefore the less effectual.

But this precept touching the politick knowledge of ourselves, hath many other branches whereupon we cannot insist.

Next to the well understanding and discerning of a man's self, there followeth the well opening and revealing a man's self; wherein we see nothing more usual than for the more able man to make the less shew. For there is a great advantage in the well setting forth of a man's virtues, fortunes, merits; and again, in the artificial covering of a man's weaknesses, defects, disgraces, staying upon the one, sliding from the other; cherishing the one by circumstances, gracing the other by exposition, and the like; wherein we see what Tacitus saith of Mutianus, who was the greatest politician of his time, *Omnium, quæ dixerat, secretaque, arte quadam ostentator*; which requireth indeed some art, lest it turn tedious and arrogant; but yet so, as ostentation (though it be to the first degree of vanity) seemeth to me rather a vice in manners than in policy: for as it is said, *Audacter calmariæ, semper aliquid haeret*; so except it be in a ridiculous degree of deformity, *Audacter te vendita, semper aliquid haeret*. For it will stick with the more ignorant and inferior sort of men, though men of wisdom and rank do smile at it, and despise it; and yet the authority won with many, doth countervail the disdain of a few. But if it be carried with decency and government, as with a natural, pleasant, and ingenuous fashion, or at times when it is mixed with some peril and unsafety (as in military persons) or at times when others are most envied; or with easy and careless passage to it and from it, without dwelling too long, or being too serious; or with an equal freedom of taxing a man's self, as well as gracing himself; or by occasion of repelling or putting down others injury or insolence; it doth greatly add to reputation; and surely not a few solid natures that want this ventosity, and cannot sail in the height of the winds, are not without some prejudice and disadvantage by their moderation.

But for these flourishes and enhancements of virtue, as they are not perchance unnecessary, so it is at least necessary that virtue be not disvalued and imbed under the just price, which is done in three manners; by offering and obtruding a man's self, wherein men think he is rewarded, when he is accepted: by doing too much, which will not give that which is well done leave to settle, and in the end induceth satiety; and by finding too soon the fruit of a man's virtue, in commendation, applause, honour, favour; wherein if a man be pleased with a little, let him hear what is truly said; *Certe ne insuetus rebus majoribus videaris, si haec te res parva, sicuti magna, delectat*.

But the covering of defects is of no less importance than the valuing of good parts: which may be done likewise in three manners, by caution, by colour, and by confidence. Caution is, when men do ingeniously and discreetly avoid to be put into those things for which they are not proper: whereas contrariwise, bold and unquiet spirits will thrust themselves into matters without difference, and so publish and proclaim all their wants, colour is when men make a way for themselves, to have a construction made of their faults or wants, as proceeding from a better cause, or intended for some other purpose: for of the one it is well said,

*Næpe latet vitium proximalis boni.*

And



And therefore whatsoever want a man hath, he must see that he pretend the virtue that shadoweth it; as if he be dull, he must affect gravity; if a coward, mildness; and so the rest. For the second, a man must frame some probable cause why he should not do his best, and why he should dissemble his abilities; and for that purpose must use to dissemble those abilities which are notorious in him, to give colour that his true wants are but industries and dissimulations. For confidence, it is the last, but surest remedy; namely, to deprecate and seem to despise whatsoever a man cannot attain, observing the good principle of the merchants, who endeavour to raise the price of their own commodities, and to beat down the price of others. But there is a confidence that passeth this other, which is, to face out a man's own defects, in seeming to conceive that he is best in those things wherein he is failing; and, to help that again, to seem on the other side that he hath least opinion of himself in those things wherein he is best; like as we shall see it commonly in poets, that if they shew their verses, and you except to any, they will say, "that that line cost them more labour than any of the rest;" and presently will seem to dislike and suspect rather some other line, which they know well enough to be the best in the number. But above all, in this righting and helping of a man's self in his own carriage, he must take heed he shew not himself dismantled, and exposed to scorn and injury, by too much dulceness, goodness, and facility of nature, but shew some sparkles of liberty, spirit, and edge: which kind of fortified carriage, with a ready rescuing of a man's self from scorns, is sometimes of necessity imposed upon men by somewhat in their person or fortune, but it ever succeedeth with good felicity.

Another precept of this knowledge is, by all possible endeavour to frame the mind to be pliant and obedient to occasion; for nothing hindereth mens fortunes so much as this: *Idem manebat, neque idem decebat.* Men are where they were, when occasions turn; and therefore to Cato, whom Livy maketh such an architect of fortune, he addeth, that he had *versatile ingenium*. And thereof it cometh, that these grave solemn wits, which must be like themselves, and cannot make departures, have more dignity than felicity. But in some it is nature to be somewhat viscous and inwrapped, and not easy to turn. In some it is a conceit, that is almost a nature, which is, that men can hardly make themselves believe that they ought to change their course, when they have found good by it in former experience; for Machiavel noteth wisely, how Fabius Maximus would have been temporizing still, according to his old bias, when the nature of the war was altered, and required hot pursuit. In some other it is want of point and penetration in their judgment, that they do not discern when things have a period, but come in too late after the occasion; as Demosthenes compareth the people of Athens to country fellows, when they play in a fence school, that if they have a blow, then they remove their weapon to that ward, and not before. In some other it is a lothness to lose labours passed, and a conceit that they can bring about occasions to their ply; and yet in the end, when they see no other remedy, then they come to it with disadvantage; as Tarchinius, that gave for the third part of Sibylla's books the treble price, when he might at first have had all three for the sumple. But from whatsoever root or cause this restiveness of mind proceedeth, it is a thing most prejudicial, and nothing is more politic than to make the wheels of our mind concentrick and voluble with the wheels of fortune.

Another precept of this knowledge, which hath some affinity with that we last spake of, but with difference, is that which is well expressed, *fatis accede desique*, that men do not only turn with the occasions, but also run with the occasions, and not strain their credit or strength to over-hard or extreme points; but chuse in their actions that which is most passable: for this will preserve men from foil, not occupy them too much about one matter, win opinion of moderation, please the most, and make a shew of a perpetual felicity in all they undertake; which cannot but mightily increafe reputation.

Another part of this knowledge seemeth to have some repugnancy with the former two, but not as I understand it, and it is that which Demosthenes uttereth in high terms: *Et quemadmodum receptum est, ut exercitum ducat imperator, sic et a cordatis viris res ipsae ducendae; ut quae ipsis videntur, ea gerantur, et non ipsis*







passages of fortune, than the obtaining fortune will remove the impediments of the mind. In second place I set down wealth and means, which, I know, most men would have placed first, because of the general use which it beareth towards all variety of occasions. But that opinion I may condemn with like reason as Machiavel doth that other, that moneys were the sinews of the wars, whereas (saith he) the true sinews of the wars are the sinews of mens arms, that is, a valiant, populous, and military nation; and he voucheth aptly the authority of Solon, who when Cressus shewed him his treasury of gold, said to him, that if another came that had better iron, he would be master of his gold. In like manner it may be truly affirmed, that it is not moneys that are the sinews of fortune, but it is the sinews and steel of mens minds, wit, courage, audacity, resolution, temper, industry, and the like. In third place I set down reputation, because of the peremptory tides and currents it hath, which if they be not taken in their due time, are seldom recovered, it being extreme hard to play an after-game of reputation. And lastly I place honour, which is more easily won by any of the other three, much more by all, than any of them can be purchased by honour. To conclude this precept, as there is order and priority in matter, so is there in time, the preposterous placing whereof is one of the commonest errors, while men fly to their ends when they should intend their beginnings; and do not take things in order of time as they come on, but marshal them according to greatness, and not according to instance, not observing the good precept, *Quod nunc instat agamus*.

Another precept of this knowledge is, not to embrace any matters which do occupy too great a quantity of time, but to have that sounding in a man's ears, *Sed fugit interea, fugit irreparabile tempus*: and that is the cause why those which take their course of rising by professions of burden, as lawyers, orators, painful divines, and the like, are not commonly so politick for their own fortune, other-wise than in their ordinary way, because they want time to learn particulars, to wait occasions, and to devise plots.

Another precept of this knowledge is, to imitate nature, which doth nothing in vain, which surely a man may do if he do well interlace his business, and bend not his mind too much upon that which he principally intendeth. For a man ought in every particular action so to carry the motions of his mind, and so to have one thing under another, as if he cannot have that he seeketh in the best degree, yet to have it in a second, or so in a third; and if he can have no part of that which he purposed, yet to turn the use of it to somewhat else; and if he cannot make any thing of it for the present, yet to make it as a seed of somewhat in time to come; and if he can contrive no effect or substance from it, yet to win some good opinion by it, or the like. So that he should exact an account of himself of every action, to reap somewhat, and not to stand amazed and confused if he fail of that he chiefly meant: for nothing is more impolitick than to mind actions wholly one by one; for he that doth so, loseth infinite occasions which intervene, and are many times more proper and propitious for somewhat that he shall need afterwards, than for that which he urgeth for the present; and therefore men must be perfect in that rule, *Haec oportet facere, et illa non omittere*.

Another precept of this knowledge is, not to engage a man's self peremptorily in any thing, though it seem not liable to accident, but ever to have a window to fly out at, or a way to retire; following the wisdom in the ancient fable of the two frogs, which consulted when their plash was dry whether they should go, and the one moved to go down into a pit, because it was not likely the water would dry there, but the other answered, "True, but if it do, how shall we get out again?"

Another precept of this knowledge is, that ancient precept of Bias, conserved not to any point of perfidiousness, but only to caution and moderation, *Et amicum tanquam inimicum futurum, et odi tanquam amicum*: for it utterly betrayeth all utility, for men to embark themselves too far into unfortunate friendships, troublesome spleens, and childish and humorous envies or emulations.

But I continue this beyond the measure of an example, led, because I would not have such knowledges, which I note as deficient, to be thought things imaginative, or in the air; or an observation or two much made of, but things of bulk



and mals, whereof an end is hardier made, than a beginning. It must be likewise conceived that in those points which I mention and set down, they are far from complete tractates of them, but only as small pieces for patterns: and lastly, no man, I suppose, will think that I mean fortunes are not obtained without all this ado; for I know they come tumbling into some mens laps, and a number obtain good fortunes by diligence in a plain way, little intermeddling, and keeping themselves from gross errors.

But as Cicero, when he setteth down an idea of a perfect orator, doth not mean that every pleader should be such; and so likewise, when a prince or a courtier hath been described by such as have handled those subjects, the mould hath used to be made according to the perfection of the art, and not according to common practice: so I understand it, that it ought to be done in the description of a politic man, I mean politick for his own fortune.

But it must be remembered all this while, that the precepts which we have set down, are of that kind which may be counted and called *bonae artes*. As for evil arts, if a man would set down for himself that principle of Machiavel; "that a man seek not to attain virtue itself, but the appearance only thereof; because the credit of virtue is a help, but the use of it is cumber:" or that other of his principles; "that he presuppose that men are not fildy to be wrought otherwise but by fear, and therefore that he seek to have every man obnoxious, low, and in strait," which the Italians call *seminar spine*, to sow thorns: or that other principle contained in the verse which Cicero citeth, *Cadant amici, dummodo inimici intercant*, as the Triumvirs, which sold, every one to other, the lives of their friends, for the deaths of their enemies: or that other protestation of L. Catilina, to set on fire, and trouble states, to the end to fish in droumy waters, and to unwrap their fortunes, *Ego si quid in fortunis meis excitatum sit incendium, id non aqua, sed ruina resingam*: or that other principle of Lyfander; "that children are to be deceived with comfits, and men with oaths:" and the like evil and corrupt positions, whereof (as in all things) there are more in number than of the good: certainly, with these dispensations from the laws of charity and integrity, the pressing of a man's fortune may be more hasty and compendious. But it is in life, as it is in ways, the shortest way is commonly the foulest, and surely the fairer way is not much about.

But men, if they be in their own power, and do bear and sustain themselves, and be not carried away with a whirlwind or tempest of ambition, ought, in the pursuit of their own fortune, to set before their eyes, not only that general map of the world, that *all things are vanity and vexation of spirit*, but many other more particular cards and directions: chiefly that, that being, without well-being, is a curse, and the greater being the greater curse; and that all virtue is most rewarded, and all wickedness most punished in itself: according as the poet saith excellently:

*Quae vobis quae digna viri, pro laudibus istis  
Praemia posse rear sibi? pulcherrima primum  
Dii morsque dabunt vestri.*

And so of the contrary. And, secondly, they ought to look up to the eternal providence and divine judgment, which often subverteth the wisdom of evil plots and imaginations, according to that Scripture, *He hath conceived mischief, and shall bring forth a vain thing*. And although men should refrain themselves from injury and evil arts, yet this incessant and sabbathless pursuit of a man's fortune leaveth not that tribute which we owe to God of our time, who, we see, demandeth a tenth of our substance, and a seventh, which is more strict, of our time: and it is to small purpose to have an erected face towards heaven, and a perpetual groveling spirit upon earth, eating dust, as doth the serpent, *Atque affigit humo divinae particulam aurae*. And if any man flatter himself that he will employ his fortune well, though he should obtain it ill, as was said concerning Augustus Caesar, and after of Septimius Severus, "that either they should never have been born, or else they should never have died," they did so much mischief in the pursuit and ascent of their greatness, and so much good when they were established: yet these compensations and satisfactions are good to be used, but never good to be purposed.



ed. And, lastly, it is not amiss for men in their race towards their fortune, to cool themselves a little with that conceit which is elegantly expressed by the emperor Charles the fifth, in his instructions to the king his son, "that fortune hath somewhat of the nature of a woman, that if she be too much wooed, she is the farther of." But this last is but a remedy for those whose tastes are corrupted; let men rather build upon that foundation which is as a corner-stone of divinity and philosophy, wherein they join close, namely, that same *Primum quæritæ*. For divinity saith, *Primum quæritæ regnum Dei, et ipsa omnia adjiciuntur vobis*: and philosophy saith, *Primum quæritæ bona animi, cætera aut adervunt, aut non adervunt*. And although the human foundation hath somewhat of the sands, as we see in M. Brutus, when he brake forth into that speech,

*Te colui (virtus) ut rem: æst tu nomen inane es:*

yet the divine foundation is upon the rock. But this may serve for a taste of that knowledge which I noted as deficient.

Concerning Government, it is a part of knowledge, secret and retired in both these respects, in which things are deemed secret; for some things are secret because they are hard to know, and some because they are not fit to utter; we see all governments are obscure and invisible.

*Totamque insusa per artus,*

*Mens agitat molem, et magno se corpore miscet.*

Such is the description of governments: we see the government of God over the world is hidden, inasmuch as it seemeth to participate of much irregularity and confusion: the government of the soul in moving the body is inward and profound, and the passages thereof hardly to be reduced to demonstration. Again, the wisdom of antiquity (the shadows whereof are in the poets) in the description of torments and pains, next unto the crime of rebellion, which was the giants offence, doth detect the crime of futility, as in Sisyphus and Tantalus. But this was meant of particulars; nevertheless even unto the general rules and discourses of policy and government there is due a reverent and reserved handling.

But, contrariwise, in the governors towards the governed, all things ought, as far as the frailty of man permitteth, to be manifest and revealed. For so it is expressed in the Scriptures touching the government of God, that this globe which seemeth to us a dark and shady body, is in the view of God as crystal, *Et in conspectu sedis tanquam mare vitreum simile crystallo*. So unto princes and states, specially towards wise senates and councils, the natures and dispositions of the people, their conditions and necessities, their factions and combinations, their animosities and discontents, ought to be, in regard of the variety of their intelligences, the wisdom of their observations, and the height of the station where they keep centinel, in great part clear and transparent. Wherefore, considering that I write to a king that is a master of this science, and is so well assisted, I think it decent to pass over this part in silence, as willing to obtain the certificate which one of the ancient philosophers aspired unto; who being silent, when others contended to make demonstration of their abilities by speech, desired it might be certified for his part, "that there was one that knew how to hold his peace."

Notwithstanding, for the more publick part of government, which is laws, I think good to note only one deficiency: which is, that all those which have written of laws, have written either as philosophers, or as lawyers, and none as statemen. As for the philosophers, they make imaginary laws for imaginary commonwealths, and their discourses are as the stars, which give little light, because they are so high. For the lawyers, they write according to the states where they live, what is received law, and not what ought to be law; for the wisdom of a law-maker is one, and of a lawyer is another. For there are in nature certain fountains of justice, whence all civil laws are derived but as streams: and like as waters do take tinctures and tastes from the soils through which they run, so do civil laws vary according to the regions and governments where they are planted, though they proceed from the same fountains. Again, the wisdom of a law-maker consisteth not only in a platform of justice, but in the application thereof; taking into consideration, by what means laws may be made certain, and what are the causes and remedies of the doubtfulness and incertainty of law; by what means



De prudentia legislatoris, sive de bonis juris.

laws may be made apt and easy to be executed, and what are the impediments and remedies in the execution of laws; what influence laws touching private right of *meum* and *tuum* have into the publick state, and how they may be made apt and agreeable; how laws are to be penned and delivered, whether in texts or in acts, brief or large, with preambles, or without; how they are to be pruned and reformed from time to time, and what is the best means to keep them from being too vast in volumes, or too full of multiplicity and crossness; how they are to be expounded, when upon causes emergent, and judicially discussed; and when upon responses and conferences touching general points or questions; how they are to be pressed, rigorously or tenderly; how they are to be mitigated by equity and good conscience; and whether discretion and strict law are to be mingled in the same courts, or kept apart in several courts; again, how the practice, profession, and erudition of law is to be censured and governed; and many other points touching the administration, and (as I may term it) animation of laws. Upon which I insist the less, because I purpose, (if God give me leave) having begun a work of this nature, in aphorisms, to propound it hereafter, noting it in the mean time for deficient.

And for your majesty's laws of England, I could say much of their dignity, and somewhat of their defect; but they cannot but excel the civil laws in fitness for the government; for the civil law was, *Non hos quaestum munus in usus*; it was not made for the countries which it governeth: hereof I cease to speak, because I will not intermingle matter of action with matter of general learning.

Thus have I concluded this portion of learning touching civil knowledge, and with civil knowledge have concluded human philosophy; and with human philosophy, philosophy in general; and being now at some pause, looking back into that I have passed through, this writing seemeth to me (*si nunquam fallit imago*) as far as a man can judge of his own work, not much better than that noise or sound which musicians make while they are in tuning their instruments, which is nothing pleasant to hear, but yet is a cause why the musick is sweeter afterwards. So have I been content to tune the instruments of the Muses, that they may play that have better hands. And surely, when I set before me the condition of these times, in which learning hath made her third visitation or circuit in all the qualities thereof; as the excellency and vivacity of the wits of this age; the noble helps and lights which we have by the travels of ancient writers; the art of printing, which communiceth books to men of all fortunes; the openness of the world by navigation, which hath disclosed multitudes of experiments, and a mass of natural history; the leisure wherewith these times abound, not employing men so generally in civil business, as the states of Græcia did, in respect of their popularity, and the state of Rome in respect of the greatness of their monarchy; the present disposition of these times at this instant to peace; the consumption of all that ever can be said in controversies of religion, which have so much diverted men from other sciences; the perfection of your majesty's learning, which as a phoenix may call whole volles of wits to follow you; and the inseparable propriety of time, which is ever more and more to disclose truth: I cannot but be raised to this persuasion, that this third period of time will far surpass that of the Græcian and Roman learning: only if men will know their own strength, and their own weakness both; and take one from the other, light of invention, and not fire of contradiction; and esteem of the inquisition of truth, as of an enterprize, and not as of a quality or ornament; and employ wit and magnificence to things of worth and excellency, and not to things vulgar, and of popular estimation. As for my labours, if any man shall please himself, or others, in the reprehension of them, they shall make that ancient and patient request, *Verbera, sed audi*. Let men reprehend them, so they observe and weigh them. For the appeal is lawful (though it may be it shall not be needful) from the first cogitations of men to their second, and from the nearer times to the times farther off. Now let us come to that learning, which both the former times were not so blessed as to know, sacred and inspired Divinity, the sabbath and port of all mens labours and peregrinations.



## Book II.

## O F L E A R N I N G.

THE prerogative of God extendeth as well to the reason, as to the will of man; so that as we are to obey his law, though we find a reluctance in our will; so we are to believe his word, though we find a reluctance in our reason. For if we believe only that which is agreeable to our sense, we give consent to the matter, and not to the author, which is no more than we would do towards a suspected and discredited witness: but that faith which was *accounted to Abraham for righteousness*, was of such a point, as whereat Sarah laughed, who therein was an image of natural reason.

Howbeit (if we will truly consider it) more worthy it is to believe, than to know as we now know. For in knowledge man's mind suffereth from sense, but in belief it suffereth from spirit, such one as it holdeth for more authorized than itself; and so suffereth from the worthier agent. Otherwise it is of the state of man glorified, for then faith shall cease, and *we shall know as we are known*.

Wherefore we conclude, that sacred theology (which in our idiom we call divinity) is grounded only upon the word and oracle of God, and not upon the light of nature: for it is written, *Coeli enarrant gloriam Dei*: but it is not written, *Coeli enarrant voluntatem Dei*: but of that it is said, *Ad legem et testimonium, sicut fecerint secundum verbum istud, etc.* This holdeth not only in those points of faith which concern the great mysteries of the Deity, of the creation, of the redemption, but likewise those which concern the law moral truly interpreted; *Love your enemies: do good to them that hate you: be like to your heavenly Father, that suffereth his rain to fall upon the just and unjust.* To this it ought to be applauded, *Nec vox hominum sonat*, it is a voice beyond the light of nature. So we see the heathen poets, when they fall upon a libertine passion, do still expostulate with laws and moralities, as if they were opposite and malignant to nature; *Et quod natura re-mittit, Invida jura negant*. So said Dendamis the Indian unto Alexander's messengers; "That he had heard somewhat of Pythagoras, and some other of the wise men of Græcia, and that he held them for excellent men: but that they had a fault, which was, that they had in too great reverence and veneration "a thing they called law and manners." So it must be confessed that a great part of the law moral is of that perfection, whereunto the light of nature cannot aspire: how then is it, that man is said to have, by the light and law of nature, some notions and conceits of virtue and vice, justice and wrong, good and evil? Thus: because the light of nature is used in two several senses; the one, that which springeth from reason, sense, induction, argument, according to the laws of heaven and earth; the other, that which is imprinted upon the spirit of man by an inward instinct, according to the law of conscience, which is a sparkle of the purity of his first estate: in which latter sense only he is participant of some light and discerning touching the perfection of the moral law: but how? Sufficient to check the vice, but not to inform the duty. So then the doctrine of religion, as well moral as mystical, is not to be attained, but by inspiration and revelation from God.

The use, notwithstanding, of reason in spiritual things, and the latitude thereof, is very great and general; for it is not for nothing that the apostle calleth religion *our reasonable service* of God, inasmuch as the very ceremonies and figures of the old law were full of reason and signification, much more than the ceremonies of idolatry and magick, that are full of non-significants and surd characters. But most especially the christian faith, as in all things, so in this, deserveth to be highly magnified, holding and preserving the golden mediocrity in this point, between the law of the heathen, and the law of Mahomet, which have embraced the two extremes. For the religion of the heathen had no constant belief or confession, but left all to the liberty of argument; and the religion of Mahomet, on the other side, interdicteth argument altogether: the one having the very face of error, and the other of imposture; whereas the faith doth both admit and reject disputation with difference.

The use of human reason in religion is of two sorts: the former, in the conception and apprehension of the mysteries of God to us revealed; the other, in the inferring and deriving of doctrine and direction thereupon. The former extendeth to the mysteries themselves; but how? By way of illustration, and not



not by way of argument. The latter consisteth indeed of probation and argument. In the former, we see, God vouchsafeth to descend to our capacity, in the expressing of his mysteries in sort as may be sensible unto us; and doth graft his revelations and holy doctrine upon the notions of our reason, and applyeth his inspirations to open our understanding, as the form of the key to the ward of the lock. For the latter, there is allowed us an use of reason and argument, secondary and respective, although not original and absolute. For after the articles and principles of religion are placed and exempted from examination of reason, it is then permitted unto us to make derivations and inferences from, and according to the analogy of them, for our better direction. In nature this holdeth not, for both the principles are examinable by induction, though not by a medium or syllogism; and, besides, those principles or first positions have no discordance with that reason, which draweth down and deduceth the inferior positions. But yet it holdeth not in religion alone, but in many knowledges, both of greater and smaller nature, namely, wherein there are not only *posita* but *placita*; for in such there can be no use of absolute reason: we see it familiarly in games of wit, as chess, or the like; the draughts and first laws of the game are positive, but how? Merely *ad placitum*, and not examinable by reason: but then how to direct our play thereupon with best advantage to win the game, is artificial and rational. So in human laws, there be many grounds and maxims, which are *placita juris*, positive upon authority, and not upon reason, and therefore not to be disputed: but what is most just, not absolutely, but relatively and according to those maxims, that affordeth a long field of dispute. Such therefore is that secondary reason, which hath place in divinity, which is grounded upon the *placets* of God.

De usu legitimo  
rationis  
humanae  
in divinis

Here therefore I note this deficiency, that there hath not been, to my understanding, sufficiently inquired and handled the true limits and use of reason in spiritual things, as a kind of divine dialectick: which for that it is not done, it seemeth to me a thing usual, by pretext of true conceiving that which is revealed, to search and mine into that which is not revealed, and, by pretext of enucleating inferences and contradictories, to examine that which is positive: the one sort falling into the error of Nicodemus, demanding to have things made more sensible than it pleaseth God to reveal them, *Quomodo possit homo nasci cum sit senex?* the other sort into the error of the disciples, which were scandalized at a shew of contradiction, *Quid est hoc, quod dicis nobis? Medicum et non videtis me, et iterum modicum, et videtis me, etc.*

Upon this I have insisted the more, in regard of the great and blessed use thereof; for this point, well laboured and defined of, would, in my judgment, be an opiate to stay and bridle not only the vanity of curious speculations, wherewith the schools labour, but the fury of controversies, wherewith the church laboureth. For it cannot but open mens eyes, to see that many controversies do merely pertain to that which is either not revealed, or positive, and that many others do grow upon weak and obscure inferences or derivations; which latter sort, if men would revive the blessed style of that great doctor of the Gentiles, would be carried thus; *Ego, non Dominus*; and again, *Secundum consilium meum*; in opinions and counsels, and not in positions and oppositions. But men are now over-ready to usurp the style, *Non ego, sed Dominus*; and not so only, but to bind it with the thunder and denunciation of curses and anathemas, to the terror of those which have not sufficiently learned out of Solomon, that *the causeless curse shall not come*.

Divinity hath two principal parts; the matter informed or revealed, and the nature of the information or revelation: and with the latter we will begin, because it hath most coherence with that which we have now last handled. The nature of the information consisteth of three branches; the limits of the information, the sufficiency of the information, and the acquiring or obtaining the information. Unto the limits of the information, belong these considerations; how far forth particular persons continue to be inspired; how far forth the church is inspired; and how far forth reason may be used: the last point whereof I have noted as deficient. Unto the sufficiency of the information belong two considerations;



considerations; what points of religion are fundamental, and what perfective, being matter of farther building and perfection upon one and the same foundation; and again, how the gradations of light, according to the dispensation of times, are material to the sufficiency of belief.

Here again I may rather give it in advice, than note it as deficient, that the points fundamental, and the points of farther perfection only ought to be with piety and wisdom distinguished; a subject tending to much like end, as that I noted before; for as that other were likely to abate the number of controversies, so this is like to abate the heat of many of them. We see Moses when he saw the Israelite and the Egyptian fight, he did not say, *Why strive you?* but drew his sword, and slew the Egyptian: but when he saw the two Israelites fight, he said, *You are brethren, why strive you?* If the point of doctrine be an Egyptian, it must be slain by the sword of the Spirit, and not reconciled: but if it be an Israelite, though in the wrong; then, *Why strive you?* We see of the fundamental points, our Saviour penneth the league thus; *He that is not with us, is against us*; but of points not fundamental, thus; *He that is not against us, is with us*. So we see the coat of our Saviour was entire without seam, and so is the doctrine of the Scriptures in itself; but the garment of the church was of divers colours, and yet not divided: we see the chaff may and ought to be severed from the corn in the ear, but the tares may not be pulled up from the corn in the field. So as it is a thing of great use well to define, what, and of what latitude those points are, which do make men merely aliens and incorporate from the church of God.

For the obtaining of the information, it reflecteth upon the true and sound interpretation of the Scriptures, which are the fountains of the water of life. The interpretations of the Scriptures are of two sorts: methodical, and solute or at large. For this divine water, which excelleth so much that of Jacob's well, is drawn forth much in the same kind, as natural water useth to be out of wells and fountains; either it is first forced up into a cistern, and from thence fetched and derived for use; or else it is drawn and received in buckets and vessels immediately where it springeth. The former sort whereof, though it seem to be the more ready, yet, in my judgment, is more subject to corrupt. This is that method which hath exhibited unto us the scholastical divinity, whereby divinity hath been reduced into an art, as into a cistern, and the streams of doctrine or positions fetched and derived from thence.

In this men have sought three things, a summary brevity, a compacted strength, and a complete perfection; whereof the two first they fail to find, and the last they ought not to seek. For as to brevity, we see, in all summary methods, while men purpore to abridge, they give cause to dilate. For the sum, or abridgment, by contraction becometh obscure; the obscurity requireth exposition, and the exposition is deduced into large commentaries, or into common places and titles, which grow to be more vast than the original writings, whence the sum was at first extracted. So, we see, the volumes of the schoolmen are greater much than the first writings of the fathers, whence the master of the Sentences made his sum or collection. So, in like manner, the volumes of the modern doctors of the civil law exceed those of the ancient juriconsults, of which Trebonian compiled the digest. So as this course of sums and commentaries is that which doth infallibly make the body of sciences more immense in quantity, and more base in substance.

And for strength, it is true, that knowledges reduced into exact methods have a shew of strength, in that each part seemeth to support and sustain the other; but this is more satisfactory than substantial: like unto buildings which stand by architecture and compaction, which are more subject to ruin, than those that are built more strong in their several parts, though less compacted. But it is plain, that the more you recede from your grounds, the weaker do you conclude: and as in nature, the more you remove yourself from particulars, the greater peril of error you do incur; so much more in divinity, the more you recede from the Scriptures, by inferences and consequences, the more weak and dilute are your positions.



And as for perfection, or completeness in divinity, it is not to be sought; which makes this course of artificial divinity the more suspect. For he that will reduce a knowledge into an art, will make it round and uniform: but, in divinity, many things must be left abrupt and concluded with this: *O altitudo sapientiae et scientiae Dei! quam incomprehensibilia sunt iudicia ejus, et non investigabiles viae ejus?* So again the apostle saith, *Ex parte scimus*; and to have the form of a total, where there is but matter for a part, cannot be without supplies by supposition and presumption. And therefore I conclude, that the true use of these sums and methods hath place in institutions or introductions preparatory unto knowledge; but in them, or by diducement from them, to handle the main body and substance of a knowledge, is in all sciences prejudicial, and in divinity dangerous.

As to the interpretation of the Scriptures solute and at large, there have been divers kinds introduced and devised; some of them rather curious and unsafe, than sober and warranted. Notwithstanding, thus much must be confessed, that the Scriptures being given by inspiration, and not by human reason, do differ from all other books in the author; which by consequence doth draw on some difference to be used by the expofitor. For the inditer of them did know four things which no man attains to know; which are, the mysteries of the kingdom of glory, the perfection of the laws of nature, the secrets of the heart of man, and the future succession of all ages. For as to the first, it is said, *He that presseth into the light, shall be oppressed of the glory*. And again, *No man shall see my face and live*. To the second, *When he prepared the heavens I was present, when by law and compass he enclosed the deep*. To the third, *Neither was it needful that any should bear witness to him of man, for he knew well what was in man*. And to the last, *From the beginning are known to the Lord all his works*.

From the former of these two have been drawn certain senses and expofitions of Scriptures, which had need be contained within the bounds of sobriety; the one anagogical, and the other philosophical. But as to the former, man is not to prevent his time; *Videmus nunc per Speculum in aenigmate, tunc autem facie ad faciem*; wherein, nevertheless, there seemeth to be a liberty granted, as far forth as the polishing of this glass, or some moderate explication of this aenigma. But to press too far into it, cannot but cause a dissolution and overthrow of the spirit of man: for in the body there are three degrees of that we receive into it, aliment, medicine, and poison; whereof aliment is that which the nature of man can perfectly alter and overcome; medicine is that which is partly converted by nature, and partly converteth nature; and poison is that which worketh wholly upon nature, without that, that nature can in any part work upon it: so in the mind, whatsoever knowledge reason cannot at all work upon and convert, is a mere intoxication, and endangereth a dissolution of the mind and understanding.

But for the latter, it hath been extremely set on foot of late time by the school of Paracelsus, and some others, that have pretended to find the truth of all natural philosophy in the Scriptures; scandalizing and traducing all other philosophy as heathenish and profane. But there is no such enmity between God's word and his works: neither do they give honour to the Scriptures, as they suppose, but much embase them. For to seek heaven and earth in the word of God, whereof it is said, *heaven and earth shall pass, but my word shall not pass*, is to seek temporary things amongst eternal: and as to seek divinity in philosophy, is to seek the living amongst the dead; so to seek philosophy in divinity, is to seek the dead amongst the living; neither are the pots or lavers, whose place was in the outward part of the temple, to be sought in the holiest place of all, where the ark of the testimony was seated. And again, the scope or purpose of the Spirit of God is not to express matters of nature in the Scriptures, otherwise than in passage, and for application to man's capacity, and to matters moral or divine. And it is a true rule, *Auctoris aliud agentis parva auctoritas*: for it were a strange conclusion, if a man should use a similitude for ornament or illustration sake, borrowed from nature or history, according to vulgar conceit, as of a basilisk, an unicorn, a centaur, a Briareus, an Hydra, or the



the like, that therefore he must needs be thought to affirm the matter thereof positively to be true. To conclude therefore, these two interpretations, the one by reduction or acnigmatical, the other philosophical or physical, which have been received and pursued in imitation of the rabbins and cabalists, are to be confined with a *noli altum sapere, sed time*.

But the two latter points, known to God, and unknown to man, touching the secrets of the heart, and the successions of time, do make a just and sound difference between the manner of the exposition of the Scriptures, and all other books. For it is an excellent observation which hath been made upon the answers of our Saviour Christ to many of the questions which were propounded to him, how that they are impertinent to the state of the question demanded; the reason whereof is, because not being like man, which knows man's thoughts by his words, but knowing man's thoughts immediately, he never answered their words, but their thoughts: much in the like manner it is with the Scriptures, which being written to the thoughts of men, and to the succession of all ages, with a foresight of all heresies, contradictions, differing estates of the church, yea, and particularly of the elect, are not to be interpreted only according to the latitude of the proper sense of the place, and respectively towards that present occasion, whereupon the words were uttered, or in precise congruity or contexture with the words before or after, or in contemplation of the principal scope of the place; but have in themselves, not only totally or collectively, but distributively in clauses and words, infinite springs and streams of doctrine to water the church in every part: and therefore as the literal sense is, as it were, the main stream or river, so the moral sense chiefly, and sometimes the allegorical or typical, are they whereof the church hath most use: not that I wish men to be bold in allegories, or indulgent or light in allusions; but that I do much condemn that interpretation of the Scripture, which is only after the manner as men use to interpret a prophane book.

In this part, touching the exposition of the Scriptures, I can report no deficiency; but by way of remembrance this I will add, in perusing books of divinity, I find many books of controversies, and many of common places, and treatises, a mass of positive divinity as it is made an art; a number of sermons and lectures, and many prolix commentaries upon the Scriptures, with harmonies and concordances: but that form of writing in divinity, which in my judgment, is of all others most rich and precious, is positive divinity collected upon particular texts of Scriptures in brief observations, not dilated into common places; not chafing after controversies, not reduced into method of art; a thing abounding in sermons, which will vanish, but defective in books which will remain, and a thing wherein this age excelleth. For I am persuaded, and I may speak it, with an *Abst invidia verbo*, and no ways in derogation of antiquity, but as in a good emulation between the vine and the olive, that if the choice and best of those observations upon texts of Scriptures, which have been made dispersedly in sermons within this your majesty's island of Britain, by the space of these forty years and more (leaving out the largeness of exhortations and applications thereupon) had been set down in a continuance, it had been the best work in divinity, which had been written since the apostles times.

The matter informed by divinity is of two kinds, matter of belief, and truth of opinion; and matter of service and adoration; which is also judged and directed by the former; the one being as the internal soul of religion, and the other as the external body thereof. And therefore the heathen religion was not only a worship of idols, but the whole religion was an idol in itself, for it had no soul; that is, no certainty of belief or confession; as a man may well think, considering the chief doctors of their church were the poets: and the reason was, because the heathen gods were no jealous gods, but were glad to be admitted into part, as they had reason. Neither did they respect the pureness of heart, so they might have external honour and rites.

But out of these two do result and issue four main branches of divinity; faith, manners, liturgy, and government. Faith containeth the doctrine of the nature of God, of the attributes of God, and of the works of God. The nature of God consisteth



consisteth of three persons in unity of Godhead. The attributes of God are either common to the Deity, or respective to the persons. The works of God summary are two, that of the creation, and that of the redemption; and both these works, as in total they appertain to the unity of the Godhead, so in their parts they refer to the three persons: that of the creation, in the mass of the matter, to the Father; in the disposition of the form, to the Son; and in the continuance and conservation of the being, to the Holy Spirit; so that of the redemption, in the election and counsel, to the Father; in the whole act and consummation to the Son; and in the application, to the Holy Spirit: for by the Holy Ghost was Christ conceived in flesh, and by the Holy Ghost are the elect regenerate in spirit. This work likewise we consider either effectually, in the elect; or privately, in the reprobate; or according to appearance, in the visible church.

For manners, the doctrine thereof is contained in the law, which discloseth sin. The law itself is divided, according to the edition thereof, into the law of nature, the law moral, and the law positive; and, according to the style, into negative and affirmative, prohibitions and commandments. Sin, in the matter and subject thereof, is divided according to the commandments; in the form thereof, it referreth to the three persons in Deity. Sins of infirmity against the Father, whose more special attribute is power; sins of ignorance against the Son, whose attribute is wisdom; and sins of malice against the Holy Ghost, whose attribute is grace or love. In the motions of it, it either moveth to the right hand or to the left, either to blind devotion, or to prophane and libertine transgression, either in imposing restraint where God granteth liberty, or in taking liberty where God imposeth restraint. In the degrees and progress of it, it divideth itself into thought, word or act. And in this part I commend much the deducing of the law of God to cases of conscience, for that I take indeed to be a breaking, and not exhibiting whole of the bread of life. But that which quickneth both these doctrines of faith and manners, is the elevation and consent of the heart; whereunto appertain books of exhortation, holy meditation, christian resolution, and the like.

For the liturgy or service, it consisteth of the reciprocal acts between God and man; which, on the part of God, are the preaching of the word, and the sacraments, which are seals to the covenant, or as the visible word; and on the part of man, invocation of the name of God; and, under the law, sacrifices; which were as visible prayers or confessions; but now the adoration being in *spiritu et veritate*, there remaineth only *vituli labiorum*, although the use of holy vows of thankfulness and retribution may be accounted also as sealed petitions.

And for the government of the church, it consisteth of the patrimony of the church, the franchises of the church, and the offices and jurisdictions of the church, and the laws of the church directing the whole; all which have two considerations, the one in themselves, the other how they stand compatible and agreeable to the civil estate.

This matter of divinity is handled either in form of instruction of truth, or in form of confutation of falsehood. The declinations from religion, besides the primitive, which is atheism, and the branches thereof, are three; heresies, idolatry, and witchcraft: heresies, when we serve the true God with a false worship; idolatry, when we worship false gods, supposing them to be true; and witchcraft, when we adore false gods, knowing them to be wicked and false. For so your majesty doth excellently well observe, that witchcraft is the height of idolatry. And yet we see though these be true degrees, Samuel teacheth us that they are all of a nature, when there is once a receding from the word of God; for so he saith, *Quasi peccatum ariolandi est repugnare, et quasi scelus idololatriæ nolle acquiescere.*

These things I have passed over so briefly, because I can report no deficiency concerning them: for I can find no space or ground that lieth vacant and unsworn in the matter of divinity; so diligent have men been, either in sowing of good seed, or in sowing of tares.

Thus have I made as it were a small globe of the intellectual world, as truly and faithfully as I could discover, with a note and description of those parts which seem to me not constantly occupate, or not well converted by the labour of man. In



## Book II.

In which, if I have in any point receded from that which is commonly received, it hath been with a purpose of proceeding *in melius*, and not *in aliud*: a mind of amendment and proficience, and not of change and difference. For I could not be true and constant to the argument I handle, if I were not willing to go beyond others, but yet not more willing than to have others go beyond me again; which may the better appear by this, that I have propounded my opinions naked and unarmed, not seeking to preoccupate the liberty of mens judgments by confutations. For in any thing which is well set down, I am in good hope, that if the first reading move an objection, the second reading will make an answer. And in those things wherein I have erred, I am sure, I have not prejudiced the right by litigious arguments, which certainly have this contrary effect and operation, that they add authority to error, and destroy the authority of that which is well invented. For question is an honour and preferment to falsehood, as on the other side it is a repulse to truth. But the errors I claim and challenge to myself as my own. The good, if any be, is due *tanquam adeps sacrificii*, to be incensed to the honour first of the Divine Majesty, and next of your majesty, to whom on earth I am most bounden.





## MAGNALIA NATURAE,

PRAECIPVE QV OAD VSVS HV MANOS.

**T**HE prolongation of life: the restitution of youth in some degree: the retardation of age: the curing of diseases counted incurable: the mitigation of pain: more easy and less loathsome purgings: the increasing of strength and activity: the increasing of ability to suffer torture or pain: the altering of complexions, and fatness and leanness: the altering of statures: the altering of features: the increasing and exalting of the intellectual parts: versions of bodies into other bodies: making of new species: transplanting of one species into another: instruments of destruction, as of war and poison: exhilaration of the spirits, and putting them in good disposition: force of the imagination, either upon another body, or upon the body itself: acceleration of time in maturations: acceleration of time in clarifications: acceleration of putrefaction: acceleration of decoction: acceleration of germination: making rich composts for the earth: impressions of the air, and raising of tempests: great alteration; as in induration, emolliation, *etc.* turning crude and watry substances into oily and unctuous substances: drawing of new foods out of substances not now in use: making new threads for apparel; and new stuffs, such as are paper, glass, *etc.* natural divinations: deceptions of the senses: greater pleasures of the senses: artificial minerals and cements.





*SYLVIA SYLVARUM:*

OR, A

NATURAL

HISTORY.

IN

TEN CENTURIES.



Ц. Е. И. С. В. И. П. О. К. И. Е. З.

Ц. Е. И. С. В. И. П. О. К. И. Е. З.

Ц. Е. И. С. В. И. П. О. К. И. Е. З.

Ц. Е. И. С. В. И. П. О. К. И. Е. З.

Ц. Е. И. С. В. И. П. О. К. И. Е. З.



## R E A D E R.

**H**aving had the honour to be continually with my lord, in compiling of this work, and to be employed therein; I have thought it not amiss (with his lordship's good leave and liking) for the better satisfaction of those that shall read it, to make known somewhat of his lordship's intentions touching the ordering, and publishing of the same. I have heard his lordship often say, that, if he should have served the glory of his own name, he had been better not to have published this Natural History: for it may seem an indigested heap of particulars, and cannot have that lustre, which books cast into methods have; but that he resolved to prefer the good of men, and that which might best secure it, before any thing that might have relation to himself. And he knew well, that there was no other way open, to unloose mens minds, being bound, and (as it were) maleficate, by the charms of deceiving notions, and theories, and thereby made impotent for generation of works, but only no where to depart from the sense, and clear experience, but to keep close to it, especially in the beginning: besides, this Natural History was a debt of his, being designed and set down for a third part of the Instauration. I have also heard his lordship discourse that men (no doubt) will think many of the experiments, contained in this collection, to be vulgar and trivial, mean and so-called, curious and fruitless: and, therefore, he wisheth that they would have perpertually before their eyes, what is now in doing, and the difference between this Natural History, and others. For those Natural Histories which are extant, being gathered for delight and use, are full of pleasant descriptions and pictures, and affect and seek after admiration, rarities, and secrets. But, contrariwise, the scope, which his lordship intendeth, is to write such a Natural History, as may be fundamental to the erecting and building of a true philosophy, for the illumination of the understanding, the extracting of axioms, and the producing of many noble works, and effects. For he hopeth by this means to acquit himself of that for which he taketh himself in a sort bound, and that is, the advancement of all learning and sciences. For, having in this present work collected the materials for the building, and in his Novum Organum (of which his lordship is yet to publish a second part) set down the instruments and directions for the work; men shall now be wanting to themselves, if they raise not knowledge to that perfection, whereof the nature of mortal men is capable. And in this behalf, I have heard his lordship speak complainingly, that his lordship, who thinketh he deserveth to be an architect in this building, should be forced to be a workman, and a labourer, and to dig the clay, and burn the brick; and, more than that (according to the hard condition of the Israelites at the latter end) to gather the straw and stubble, over all the fields, to burn the bricks withal. For he knoweth, that except he do it, nothing will be done: men are so set to despise the means of their own good. And as for the baseness of many of the experiments; as long as they be God's works, they are honourable enough. And for the vulgarness of them, true axioms must be drawn from plain experience, and not from doubtful; and his lordship's course is to make wonders plain, and not plain things wonders; and that experience likewise must be broken and grinded, and not whole, or as it groweth. And for use; his lordship hath often in his mouth, the two kinds of experiments; experimenta fructifera, and experimenta lucifera: experiments of use, and experiments of light: and he reporteth himself, whether he were not a strange man, that should think that light hath no use, because



## T O T H E R E A D E R .

cause it hath no matter. Further, his lordship thought good also to add unto many of the experiments themselves some gloss of the causes; that in the succeeding work of interpreting nature, and framing axioms, all things may be in more readines. And for the causes herein by him assigned; his lordship persuadeth himself, they are far more certain, than those that are rendered by others; not for any excellency of his own wit (as his lordship is wont to say) but in respect of his continual conversation with nature, and experience. He did consider likewise, that by this addition of causes, mens minds (which make so much haste to find out the causes of things) would not think themselves utterly lost, in a vast wood of experience, but stay upon these causes, such as they are, a little, till true axioms may be more fully discovered. I have heard his lordship say also, that one great reason, why he would not put these particulars into any exact method (though he that looketh attentively into them, shall find that they have a secret order) was, because he conceived that other men would now think that they could do the like; and so go on with a further collection: which, if the method had been exact, many would have despaired to attain by imitation. As for his lordship's love of order, I can refer any man to his lordship's latin book, De Augmentis Scientiarum; which (if my judgment be any thing) is written in the exactest order, that I know any writing to be. I will conclude with an usual speech of his lordship's: That this work of his Natural History is the World as God made it, and not as men have made it; for that it hath nothing of imagination.

W. RAWLEY.

This epistle is the same, that should have been prefixed to this book, if his lordship had lived.

N A T U R A L



## NATURAL HISTORY.

## CENTURY I.

*Experiments in consort, touching the straining and passing of bodies one through another; which they call Percolation.*

**D**IG a pit upon the sea-shore, somewhat above the high-water mark, and sink it as deep as the low-water mark; and as the tide cometh in, it will fill with water, fresh and potable. This is commonly practised upon the coast of Barbary, where other fresh water is wanting. And Cæsar knew this well when he was besieged in Alexandria: for by digging of pits in the sea-shore, he did frustrate the laborious works of the enemies, which had turned the sea-water upon the wells of Alexandria; and so saved his army being then in desperation. But Cæsar mistook the cause, for he thought that all sea-sands had natural springs of fresh water: but it is plain, that it is the sea-water; because the pit filleth according to the measure of the tide: and the sea-water passing or straining through the sands, leaveth the saltness.

2. I REMEMBER to have read, that trial hath been made of salt-water passed through earth, through ten vessels, one within another; and yet it hath not lost its saltness, as to become potable: but the same man saith, that (by the relation of another) salt-water drained through twenty vessels, hath become fresh. This experiment seemeth to cross that other of pits made by the sea-side; and yet but in part, if it be true that twenty repetitions do the effect. But it is worth the note, how poor the imitations of nature are in common course of experiments, except they be led by great judgment, and some good light of axioms. For first, there is no small difference between a passage of water through twenty small vessels, and through such a distance, as between the low-water and high-water mark. Secondly, there is a great difference between earth and sand; for all earth hath in it a kind of nitrous salt, from which sand is more free; and besides, earth doth not strain the water so finely, as sand doth. But there is a third point, that I suspect as much or more than the other two; and that is, that in the experiment of transmissiion of the sea-water into the pits, the water riseth; but in the experiment of transmissiion of the water through the vessels, it falleth. Now certain it is, that the saltier part of water (once salted throughout) goeth to the bottom. And therefore no marvel, if the draining of water by descent, doth not make it fresh: besides, I do somewhat doubt, that the very dashing of the water, that cometh from the sea, is more proper to strike off the salt part, than where the water slideth of its own motion.

3. IT seemeth percolation, or transmissiion (which is commonly called straining) is a good kind of separation, not only of thick from thin, and gross from fine, but of more subtle natures; and varieth according to the body through which the transmissiion is made: as if through a woollen bag, the liquor leaveth the fatness; if through sand, the saltness, etc. They speak of severing wine from water, passing it through ivy wood, or through other the like porous body; but *non constat*.

4. THE gum of trees (which we see to be commonly shining and clear) is but a fine passage or straining of the juice of the tree through the wood and bark. And in like manner, Cornish diamonds, and rock rubies (which are yet more resplendent than gums) are the fine exudations of stone.

5. ARISTOTLE giveth the cause, vainly, why the feathers of birds are of more lively colours, than the hairs of beasts; for no beast hath any fine azure, or carnation,



tion, or green hair. He saith, it is because birds are more in the beams of the sun than beasts; but that is manifestly untrue; for cattle are more in the sun than birds, that live commonly in the woods, or in some covert. The true cause is, that the excrementitious moisture of living creatures, which maketh as well the feathers in birds, as the hair in beasts, passeth in birds through a finer and more delicate strainer than it doth in beasts: for feathers pass through quills; and hair through skin.

6. THE clarifying of liquors by adhesion, is an inward percolation; and is effected, when some cleaving body is mixed and agitated with the liquors; whereby the grosser part of the liquor sticks to that cleaving body; and so the finer parts are freed from the grosser. So the apothecaries clarify their syrups by whites of eggs, beaten with the juices which they would clarify; which whites of eggs gather all the dregs and grosser parts of the juice to them; and after the syrup being set on the fire, the whites of eggs themselves harden, and are taken forth. So Hippocras is clarified by mixing with milk, and stirring it about, and then passing it through a woollen bag, which they call Hippocrates's Sleeve, and the cleaving nature of the milk draweth the powder of the spices, and grosser parts of the liquor to it; and in the passage they stick upon the woollen bag.

7. THE clarifying of water is an experiment tending to health; besides the pleasure of the eye, when water is crystalline. It is effected by casting in and placing pebbles at the head of a current, that the water may strain through them.

8. IT may be, percolation doth not only cause clearness and splendour, but sweetness of flavour; for that also followeth as well as clearness, when the finer parts are severed from the grosser. So it is found, that the sweats of men, that have much heat, and exercise much, and have clean bodies, and fine skins, do smell sweet; as was said of Alexander; and we see, commonly that gums have sweet odours.

*Experiments in consort, touching Motion of bodies upon their pressure.*

9. TAKE a glass, and put water into it, and wet your finger, and draw it round about the lip of the glass, pressing it somewhat hard; and after you have drawn it some few times about, it will make the water frisk and sprinkle up, in a fine dew. This instance doth excellently demonstrate the force of compression in a solid body: for whensoever a solid body (as wood, stone, metal, *etc.*) is pressed, there is an inward tumult in the parts thereof, seeking to deliver themselves from the compression: and this is the cause of all violent motion. Wherein it is strange in the highest degree, that this motion hath never been observed, nor inquired; it being of all motions the most common, and the chief root of all mechanical operations. This motion worketh in round at first, by way of proof and search which way to deliver itself; and then worketh in progress, where it findeth the deliverance easiest. In liquors this motion is visible; for all liquors stricken make round circles, and withal dash; but in solids (which break not) it is so subtle, as it is invisible; but nevertheless bewrayeth itself by many effects; as in this instance whereof we speak. For the pressure of the finger, furthered by the wetting (because it sticketh so much the better unto the lip of the glass) after some continuance, putteth all the small parts of the glass into work; that they strike the water sharply; from which percussion that sprinkling cometh.

10. If you strike or pierce a solid body, that is brittle, as glass, or sugar, it breaketh not only where the immediate force is; but breaketh all about into shivers and fitters; the motion, upon the pressure, searching all ways, and breaking where it findeth the body weakest.

11. THE powder in shot, being dilated into such a flame as endureth not compression, moveth likewise in round (the flame being in the nature of a liquid body) sometimes recoiling, sometimes breaking the piece, but generally discharging the bullet, because there it findeth easiest deliverance.

12. THIS motion upon pressure, and the reciprocal thereof, which is motion upon tension, we use to call (by one common name) motion of liberty; which is, when any body, being forced to a preternatural extent or dimension, delivereth and restoreth itself to the natural: as when a blown bladder (pressed) riseth again; or



or when leather or cloth tentured, spring back. These two motions (of which there be infinite instances) we shall handle in due place.

13. THIS motion upon pressure is excellently also demonstrated in sounds; as when one chimeth upon a bell, it soundeth; but as soon as he layeth his hand upon it, the sound ceaseth: and so the sound of a virginal string, as soon as the quill of the jack falleth from it, stoppeth. For these sounds are produced by the subtile percussion of the minute parts of the bell, or string, upon the air; all one, as the water is caused to leap by the subtile percussion of the minute parts of the glass, upon the water, whereof we spake a little before in the ninth experiment. For you must not take it to be the local shaking of the bell, or string, that doth it: as we shall fully declare, when we come hereafter to handle sounds.

*Experiments in consort, touching separations of bodies by weight:*

14. TAKE a glass with a belly and a long neb; fill the belly (in part) with water: take also another glass, whereinto put claret wine and water mingled; reverse the first glass, with the belly upwards, stopping the neb with your finger; then dip the mouth of it within the second glass, and remove your finger: continue it in that posture for a time; and it will unminge the wine from the water: the wine ascending and settling in the top of the upper glass; and the water descending and settling in the bottom of the lower glass. The passage is apparent to the eye; for you shall see the wine, as it were, in a small vein, rising through the water. For handsoneness sake (because the working requireth some small time) it were good you hang the upper glass upon a nail. But as soon as there is gathered so much pure and unminged water in the bottom of the lower glass, as that the mouth of the upper glass dipbeth into it, the motion ceaseth.

15. LET the upper glass be wine, and the lower water; there followeth no motion at all. Let the upper glass be water pure, the lower water coloured, or; contrariwise, there followeth no motion at all. But it hath been tried, that though the mixture of wine and water, in the lower glass, be three parts water and but one wine, yet it doth not dead the motion. This separation of water and wine appeareth to be made by weight; for it must be of bodies of unequal weight, or else it worketh not; and the heavier body must ever be in the upper glass. But then note withal, that the water being made penile, and there being a great weight of water in the belly of the glass, sustained by a small pillar of water in the neck of the glass, it is that which setteth the motion on work: for water and wine in one glass, with long standing, will hardly sever.

16. THIS experiment would be extended from mixtures of several liquors, to simple bodies which consist of several similar parts: try it therefore with brine or salt-water, and fresh-water: placing the salt-water (which is the heavier) in the upper glass; and see whether the fresh will come above. Try it also with water thick sugared, and pure water; and see whether the water, which cometh above, will lose its sweetness: for which purpose it were good there were a little cock made in the belly of the upper glass.

*Experiments in consort, touching judicious and accurate infusions, both in liquors and air.*

17. IN bodies containing fine spirits, which do easily dissipate, when you make infusions, the rule is; a short stay of the body in the liquor, receiveth the spirit; and a longer stay, confoundeth it; because it draweth forth the earthy part withal, which embaleth the finer. And therefore it is an error in physicians, to rest simply upon the length of stay, for increasing the virtue. But if you will have the infusion strong, in those kinds of bodies which have fine spirits, your way is not to give longer time, but to repeat the infusion of the body oftner. Take violets, and infuse a good pugil of them in a quart of vinegar; let them stay three quarters of an hour, and take them forth, and refresh the infusion with like quantity of new violets, seven times; and it will make a vinegar so fresh of the flower, as if, a twelvemonth after, it be brought you in a saucer, you shall smell it before it come at you. Note, that it smelleth more perfectly of the flower a good while after, than at first.



18. THIS rule, which we have given, is of singular use for the preparations of medicines, and other infusions. As for example: the leaf of burrage hath an excellent spirit to repress the fuliginous vapour of dusky melancholy, and so to cure madness: but nevertheless if the leaf be infused long, it yieldeth forth but a raw substance, of no virtue: therefore I suppose, that if in the must of wine, or wort of beer, while it worketh, before it be tunned, the burrage stay a small time, and be often changed with fresh; it will make a sovereign drink for melancholy passions. And the like I conceive of orange flowers.

19. RHUBARB hath manifestly in it parts of contrary operations: parts that purge; and parts that bind the body: and the first lie looser, and the latter lie deeper: so that if you infuse rhubarb for an hour, and crush it well, it will purge better, and bind the body less after the purging, than if it had stood twenty four hours; this is tried: but I conceive likewise, that by repeating the infusion of rhubarb, several times (as was said of violets) letting each stay in but a small time; you may make it as strong a purging medicine, as scammony. And it is not a small thing won in physick, if you can make rhubarb, and other medicines that are benedict, as strong purgers, as those that are not without some malignity.

20. PURGING medicines, for the most part, have their purgative virtue in a fine spirit; as appeareth by that they endure not boiling without much loss of virtue. And therefore it is of good use in physick, if you can retain the purging virtue, and take away the unpleasant taste of the purger; which it is like you may do, by this course of infusing oft, with little stay. For it is probable, that the horrible and odious taste is in the grosser part.

21. GENERALLY, the working by infusions, is gross and blind, except you first try the issuing of the several parts of the body, which of them issue more speedily, and which more slowly; and so by apportioning the time, can take and leave that quality, which you desire. This to know there are two ways; the one to try what long stay, and what short stay worketh, as hath been said; the other to try in order the succeeding infusions of one and the same body, successively, in several liquors. As for example; take orange pills, or rosemary, or cinnamon, or what you will; and let them infuse half an hour in water: then take them out, and infuse them again in other water; and so the third time: and then taste and consider the first water, the second, and the third: and you will find them differing, not only in strength and weakness, but otherwise in taste or odour; for it may be the first water will have more of the scent, as more fragrant; and the second more of the taste, as more bitter or biting, *etc.*

22. INFUSIONS in air (for so we may well call odours) have the same diversities with infusions in water; in that the several odours (which are in one flower, or other body) issue at several times; some earlier, some later: so we find that violets, woodbines, strawberries, yield a pleasing scent, that cometh forth first; but soon after an ill scent quite differing from the former. Which is caused, not so much by mellowing, as by the late issuing of the grosser spirit.

23. As we may desire to extract the finest spirits in some cases; so we may desire also to discharge them (as hurtful) in some other. So wine burnt, by reason of the evaporating of the finer spirit, enflameth less, and is best in agues: opium loseth some of his poisonous quality, if it be vapoured out, mingled with spirit of wine, or the like: senna loseth somewhat of its windiness by decocting; and (generally) subtle or windy spirits are taken off by incension, or evaporation. And even in infusions in things that are of too high a spirit, you were better pour off the first infusion, after a small time, and use the latter.

*Experiment solitary touching the appetite of continuation in liquids.*

24. BUBBLES are in the form of an hemisphere; air within, and a little skin of water without: and it seemeth somewhat strange, that the air should rise so swiftly, while it is in the water; and when it cometh to the top, should be stayed by so weak a cover as that of the bubble is. But as for the swift ascent of the air, while it is under the water, that is a motion of percussion from the water; which itself descending, driveth up the air; and no motion of levity in the air. And this Democritus called *motus plagae*. In this common experiment, the cause of the enclosure



enclosure of the bubble is, for that the appetite to resist separation, or discontinuance (which in solid bodies is strong) is also in liquors, though fainter and weaker; as we see in this of the bubble: we see it also in little glasses of spiritte that children make of rushes; and in castles of bubbles, which they make by blowing into water, having obtained a little degree of tenacity by mixture of soap: we see it also in the stillicides of water, which if there be water enough to follow, will draw themselves into a small thread, because they will not discontinue; but if there be no remedy, then they cast themselves into round drops; which is the figure that saveth the body most from discontinuance: the same reason is of the roundness of the bubble, as well for the skin of water, as for the air within: for the air likewise avoideth discontinuance; and therefore casteth itself into a round figure. And for the stop and arrest of the air a little while, it sheweth that the air of itself hath little or no appetite of ascending.

*Experiment solitary touching the making of artificial springs.*

25. THE rejection, which I continually use, of experiments (though it appeareth not) is infinite; but yet if an experiment be probable in the work, and of great use, I receive it, but deliver it as doubtful. It was reported by a sober man, that an artificial spring may be made thus: Find out a hanging ground, where there is a good quick fall of rain-water. Lay a half-trough of stone, of a good length, three or four foot deep within the same ground; with one end upon the high ground, the other upon the low. Cover the trough with brakes a good thickness, and cast sand upon the top of the brakes: you shall see (saith he) that after some showers are past, the lower end of the trough will run like a spring of water: which is no marvel, if it hold while the rain-water lasteth; but he said it would continue long time after the rain is past: as if the water did multiply itself upon the air, by the help of the coldness and condensation of the earth, and the consort of the first water.

*Experiment solitary touching the venomous quality of man's flesh.*

26. THE French (which put off the name of the French disease, unto the name of the disease of Naples) do report, that at the siege of Naples, there were certain wicked merchants that barrellled up man's flesh (of some that had been lately slain in Barbary) and sold it for tunney; and that upon that foul and high nourishment, was the original of that disease. Which may well be; for that it is certain, that the canibals in the West-Indies eat man's flesh; and the West-Indies were full of the pox when they were first discovered: and at this day the mortalest poisons, practised by the West-Indians, have some mixture of the blood, or fat, or flesh of man: and divers witches and forceresses, as well amongst the heathen, as amongst the christians, have fed upon man's flesh, to aid (as it seemeth) their imagination, with high and foul vapours.

*Experiment solitary touching the version and transmutation of air into water.*

27. IT seemeth that there be these ways (in likelihood) of version of vapours or air, into water and moisture. The first is cold; which doth manifestly condense; as we see in the contracting of the air in the weather-glass; whereby it is a degree nearer to water. We see it also in the generation of springs, which the antients thought (very probably) to be made by the version of air into water, holpen by the rest, which the air hath in those parts; whereby it cannot dissipate. And by the coldness of rocks; for there springs are chiefly generated. We see it also in the effects of the cold of the middle region (as they call it) of the air; which produceth dews and rains. And the experiment of turning water into ice, by snow, nitre, and salt (whereof we shall speak hereafter) would be transferred to the turning of air into water. The second way is by compression; as in stillatories, where the vapour is turned back upon itself, by the encounter of the sides of the stillatory; and in the dew upon the covers of boiling pots; and in the dew towards rain, upon marble and wainscot. But this is like to do no great effect; except it be upon vapours, and gross air, that are already very near in degree to water.



water. The third is that, which may be searched into, but doth not yet appear; which is, by mingling of moist vapours with air; and trying if they will not bring a return of more water, than the water was at first: for if so, that increase is a version of the air: therefore put water into the bottom of a stillatory, with the neck stopped; weigh the water first; hang in the middle of the stillatory a large sponge; and see what quantity of water you can crush out of it; and what it is more, or less, compared with the water spent; for you must understand, that if any version can be wrought, it will be easiest done in small pores: and that is the reason why we prescribe a sponge. The fourth way is probable also, though not appearing; which is, by receiving the air into the small pores of bodies: for (as hath been said) every thing in small quantity is more easy for version; and tangible bodies have no pleasure in the consort of air, but endeavour to subact it into a more dense body: but in entire bodies it is checked; because if the air should condense, there is nothing to succeed: therefore it must be in loose bodies, as sand, and powder; which, we see, if they lie close, of themselves gather moisture.

*Experiment solitary touching helps towards the beauty and good features of persons.*

28. It is reported by some of the ancients; that whelps, or other creatures, if they be put young into such a cage or box, as they cannot rise to their stature, but may increase in breadth or length, will grow accordingly as they can get room: which if it be true and faisible, and that the young creature so pressed, and straitened, doth not thereupon die; it is a means to produce dwarf creatures, and in a very strange figure. This is certain, and noted long since; that the pressure or forming of parts of creatures, when they are very young, doth alter the shape not a little; as the stroaking of the heads of infants, between the hands, was noted of old, to make *Macrocephali*; which shape of the head, at that time, was esteemed. And the raising gently of the bridge of the nose, doth prevent the deformity of a saddle nose. Which observation well weighed, may teach a means to make the persons of men and women, in many kinds, more comely, and better featured, than otherwise they would be; by the forming and shaping of them in their infancy: as by stroaking up the calves of the legs, to keep them from falling down too low; and by stroaking up the forehead, to keep them from being low-foreheaded. And it is a common practice to swathe infants, that they may grow more straight, and better shaped: and we see young women, by wearing strait bodice, keep themselves from being gross and corpulent.

*Experiment solitary touching the condensing of air in such sort as it may put on weight, and yield nourishment.*

29. ONIONS, as they hang, will many of them shoot forth; and so will penny-royal; and so will an herb called orpin; with which they use in the country to trim their houses, binding it to a lath or stick, and setting it against a wall. We see it likewise, more especially, in the greater semper-vive, which will put out branches, two or three years: but it is true, that commonly they wrap the root in a cloth besmeared with oil, and renew it once in half a year. The like is reported by some of the ancients, of the stalks of lilies. The cause is; for that these plants have a strong, dense, and succulent moisture, which is not apt to exhale; and so is able, from the old store, without drawing help from the earth, to suffice the sprouting of the plant: and this sprouting is chiefly in the late spring, or early summer; which are the times of putting forth. We see also, that stumps of trees, lying out of the ground, will put forth sprouts for a time. But it is a noble trial, and of very great consequence, to try whether these things, in the sprouting, do increase weight; which must be tried, by weighing them before they be hanged up; and afterwards again, when they are sprouted. For if they increase not in weight, then it is no more but this; that what they send forth in the sprout, they lose in some other part: but if they gather weight, then it is *magnæ naturæ*; for it sheweth that air may be made so to be condensed, as to be converted into a dense body; whereas the race and period of all things, here above the earth, is to extenuate and turn things to be more pneumatical and rare; and not to be retrograde, from pneumatical to that which is dense. It sheweth also, that air can



can nourish; which is another great matter of consequence. Note, that to try this, the experiment of the *semper-vive*, must be made without oiling the cloth; for else, it may be, the plant receiveth nourishment from the oil.

*Experiment solitary touching the commixture of flame and air, and the great force thereof.*

30. FLAME and air do not mingle, except it be in an instant; or in the vital spirits of vegetables, and living creatures. In gun-powder, the force of it hath been ascribed to rarefaction of the earthy substance into flame; and thus far it is true: and then (forsooth) it is become another element; the form whereof occurieth more place; and so, of necessity, followeth a dilatation: and therefore, lest two bodies should be in one place, there must needs also follow an expulsion of the pellet; or blowing up of the mine. But these are crude and ignorant speculations. For flame, if there were nothing else, except it were in very great quantity, will be suffocate with any hard body, such as a pellet is; or the barrel of a gun; so as the flame would not expel the hard body; but the hard body would kill the flame, and not suffer it to kindle, or spread. But the cause of this so potent a motion, is the nitre (which we call otherwise *salt-petre*) which having in it a notable crude and windy spirit, first by the heat of the fire suddenly dilateth itself (and we know that simple air, being preternaturally attenuated by heat, will make itself room, and break and blow up that which resisteth it;) and secondly, when the nitre hath dilated itself, it bloweth abroad the flame, as an inward bel-lows. And therefore we see that brimstone, pitch, camphire, wild-fire, and divers other inflammable matters, though they burn cruelly, and are hard to quench, yet they make no such fiery wind, as gun-powder doth: and on the other side, we see that quick-silver (which is a most crude and watry body) heated, and pent in, hath the like force with gun-powder. As for living creatures, it is certain, their vital spirits are a substance compounded of an airy and stannary matter; and though air and flame being free, will not well mingle; yet bound in by a body that hath some fixing, they will. For that you may best see in those two bodies (which are their aliments) water and oil; for they likewise will not well mingle of themselves; but in the bodies of plants, and living creatures, they will. It is no marvel therefore, that a small quantity of spirits, in the cells of the brain and canals of the sinews, are able to move the whole body (which is of so great mass) both with so great force, as in wrestling, leaping; and with so great swiftness, as in playing division upon the lute. Such is the force of these two natures, air and flame, when they incorporate.

*Experiment solitary touching the secret nature of flame.*

31. TAKE a small wax candle, and put it in a socket of brass or iron; then set it upright in a poringer full of spirit of wine, heated: then set both the candle and spirit of wine on fire, and you shall see the flame of the candle open itself, and become four or five times bigger than otherwise it would have been; and appear in figure globular, and not in pyramis. You shall see also, that the inward flame of the candle keepeth colour, and doth not wax any whit blue towards the colour of the outward flame of the spirit of wine. This is a noble instance; wherein two things are most remarkable: the one, that one flame within another quencheth not; but is a fixed body, and continueth as air or water do. And therefore flame would still ascend upwards in one greatness, if it were not quenched on the sides: and the greater the flame is at the bottom, the higher is the rise. The other, that flame doth not mingle with flame, as air doth with air, or water with water, but only remaineth contiguous; as it cometh to pass betwixt consisting bodies. It appeareth also, that the form of a pyramis in flame, which we usually see, is merely by accident, and that the air about, by quenching the sides of the flame, crusheth it, and extenuateth it into that form; for of itself it would be round; and therefore smoak is in the figure of a pyramis reversed; for the air quencheth the flame, and receiveth the smoak. Note also, that the flame of the candle, within the flame of the spirit of wine, is troubled; and doth not only open and move upwards, but moveth waving, and to and fro: as if flame of its



own nature (if it were not quenched) would roll and turn, as well as move upwards. By all which it should seem, that the celestial bodies (most of them) are true fires or flames, as the Stoicks held; more fine (perhaps) and rarified, than our flame is. For they are all globular and determinate; they have rotation; and they have the colour and splendour of flame: so that flame above is durable; and consistent, and in its natural place; but with us it is a stranger, and momentary, and impure; like Vulcan that halted with his fall.

*Experiment solitary touching the different force of flame in the midst and on the sides.*

32. TAKE an arrow, and hold it in flame, for the space of ten pulses, and when it cometh forth, you shall find those parts of the arrow, which were on the outides of the flame, more burned, blacked, and turned almost into a coal, whereas that in the midst of the flame will be as if the fire had scarce touched it. This is an instance of great consequence for the discovery of the nature of flame; and sheweth manifestly, that flame burneth more violently towards the sides, than in the midst: and, which is more, that heat or fire is not violent or furious, but where it is checked and pent. And therefore the Peripateticks (howsoever their opinion of an element of fire above the air is justly exploded) in that point they acquit themselves well: for being opposed, that if there were a sphere of fire, that encompassed the earth so near hand, it were impossible but all things should be burnt up; they answer, that the pure elemental fire, in its own place, and not irritated, is but of a moderate heat.

*Experiment solitary touching the decrease of the natural motion of gravity, in great distance from the earth; or within some depth of the earth.*

33. It is affirmed constantly by many, as an usual experiment; that a lump of ore, in the bottom of a mine, will be tumbled and stirred by two mens strength; which if you bring it to the top of the earth, will ask six mens strength; least to stir it. It is a noble instance, and is fit to be tried to the full; for it is very probable, that the motion of gravity worketh weakly, both far from the earth, and also within the earth: the former, because the appetite of union of dense bodies with the earth, in respect of the distance, is more dull; the latter, because the body hath in part attained its nature, when it is some depth in the earth. For as for the moving to a point or place (which was the opinion of the ancients) it is a mere vanity.

*Experiment solitary touching the contraction of bodies in bulk, by the mixture of the more liquid body with the more solid.*

34. It is strange, how the ancients took up experiments upon credit, and yet did build great matters upon them. The observation of some of the best of them, delivered confidently, is, that a vessel filled with ashes will receive the like quantity of water, that it would have done if it had been empty. But this is utterly untrue; for the water will not go in by a fifth part. And I suppose, that that fifth part is the difference of the lying close, or open, of the ashes; as we see that fish alone, if they be hard pressed, will lie in less room: and so the ashes with air between, lie looser; and with water, closer. For I have not yet found certainly, that the water itself, by mixture of ashes, or dust, will shrink or draw into less room.

*Experiment solitary touching the making vines more fruitful.*

35. It is reported of credit, that if you lay good store of kernels of grapes about the root of a vine, it will make the vine come earlier and prosper better. It may be tried with other kernels, laid about the root of a plant of the same kind; as figs, kernels of apples, etc. The cause may be, for that the kernels draw out of the earth juice fit to nourish the tree, as those that would be trees of themselves, though there were no root; but the root being of greater strength, robbeth and devoureth the nourishment, when they have drawn it: as great fishes devour little.



*Experiments in consent touching purging medicines.*

36. THE operation of purging medicines, and the causes thereof, have been thought to be a great secret; and so, according to the foolish manner of men, it is referred to a hidden propriety, a specifical virtue, and a fourth quality, and the like shifts of ignorance. The causes of purging are divers: all plain and perspicuous; and thoroughly maintained by experience. The first is, that whatsoever cannot be overcome and digested by the stomach, is by the stomach either put up by vomit, or put down to the guts; and by that motion of expulsion in the stomach and guts, other parts of the body (as the orifices of the veins, and the like) are moved to expel by consent. For nothing is more frequent than motion of consent in the body of man. This surcharge of the stomach is caused either by the quality of the medicine, or by the quantity. The qualities are three: extreme bitter, as in aloes, coloquintida, *etc.* loathsome and of horrible taste, as in agarick, black hellebore, *etc.* and of secret malignity, and disagreement towards man's body, many times not appearing much in the taste, as in scammony, mechoacan, antimony, *etc.* And note well, that if there be any medicine that purgeth, and hath neither of the first two manifest qualities, it is to be held suspected as a kind of poison; for that it worketh either by corrosion, or by a secret malignity, and enmity to nature: and therefore such medicines are warily to be prepared and used. The quantity of that which is taken doth also cause purging; as we see in a great quantity of new milk from the cow; yea and a great quantity of meat; for surfeits many times turn to purges, both upwards and downwards. Therefore we see generally, that the working of purging medicines cometh two or three hours after the medicines taken; for that the stomach first maketh a proof, whether it can concoct them. And the like happeneth after surfeits, or milk in too great quantity.

37. A second cause is modification of the orifices of the parts; especially of the mesenteric veins; as it is seen, that salt, or any such thing that is sharp and biting, put into the fundament, doth provoke the part to expel; and mustard provoketh sneezing: and any sharp thing to the eyes provoketh tears. And therefore we see that almost all purgers have a kind of twitching and vellication, besides the griping which cometh of wind. And if this modification be in an over-high degree, it is little better than the corrosion of poison; as it cometh to pass sometimes in antimony, especially if it be given to bodies not replete with humours; for where humours abound, the humours save the parts.

38. The third cause is attraction: for I do not deny, but that purging medicines have in them a direct force of attraction; as drawing plaisters have in surgery: and we see sage, or betony bruised, sneezing powder, and other powders or liquors (which the physicians call *errhines*) put into the nose, draw phlegm and water from the head; and so it is in apoplegmatisms and gargarisms, that draw the rheum down by the palate. And by this virtue, no doubt, some purgers draw more one humour, and some another, according to the opinion received: as rhubarb draweth choler; sena melancholy; agarick phlegm, *etc.* but yet (more or less) they draw promiscuously. And note also, that besides sympathy between the purger and the humour, there is also another cause, why some medicines draw some humour more than another. And it is, for that some medicines work quicker than others: they that draw quick, draw only the lighter and more fluid humours; and they that draw slow, work upon the more tough and viscous humours. And therefore men must beware how they take rhubarb, and the like, alone familiarly; for it taketh only the lightest part of the humour away, and leaveth the mass of humours more obstinate. And the like may be said of wormwood, which is so much magnified.

39. The fourth cause is flatulosity; for wind stirred moveth to expel: and we find that in effect all purgers have in them a raw spirit, or wind; which is the principal cause of torsion in the stomach and belly. And therefore purgers lose (most of them) the virtue, by decoction upon the fire; and for that cause are given chiefly in infusion, juice, or powder.

40. The fifth cause is compression, or erussing: as when water is crushed out of



of a sprunge: so we see that taking cold moveth looseness by contraction of the skin and outward parts; and so doth cold likewise cause rheums and fluxions from the head; and some astringent plaisters crush out purulent matter. This kind of operation is not found in many medicines: myrobalanes have it; and it may be the barks of peaches; for this virtue requireth an astringion; but such an astringion as is not grateful to the body; (for a pleasing astringion doth rather bind in the humours, than expel them;) and therefore, such astringion is found in things of an harsh taste.

41. THE sixth cause is lubrication and relaxation. As we see in medicines emollient; such as are milk, honey, mallows, lettuce, mercurial, pellitory of the wall, and others. There is also a secret virtue of relaxation in cold: for the heat of the body bindeth the parts and humours together, which cold relaxeth: as it is seen in urine, blood, pottage, or the like; which, if they be cold, break and dissolve. And by this kind of relaxation, fear looseth the belly; because the heat retiring inwards towards the heart, the guts and other parts are relaxed; in the same manner as fear also causeth trembling in the sinews. And of this kind of purgers are some medicines made of mercury.

42. THE seventh cause is absterision; which is plainly a scouring off, or incision of the more viscous humours, and making the humours more fluid; and cutting between them and the part; as is found in nitrous water, which scoureth linen cloth (speedily) from the foulness. But this incision must be by a sharpness, without astringion: which we find in salt, wormwood, oxymel, and the like.

43. THERE be medicines that move stools, and not urine; some other, urine, and not stools. Those that purge by stool, are such as enter not at all, or little into the mesenteric veins; but either at the first are not digestible by the stomach, and therefore move immediately downwards to the guts; or else are afterwards rejected by the mesenteric veins, and so turn likewise downwards to the guts; and of these two kinds are most purgers. But those that move urine, are such as are well digested of the stomach, and well received also of the mesenteric veins; so they come as far as the liver, which sendeth urine to the bladder, as the whey of blood: and those medicines being opening and piercing, do fortify the operation of the liver, in sending down the whey part of the blood to the reins. For medicines urinate do not work by rejection and indigestion, as solutive do.

44. THERE be divers medicines, which in greater quantity move stool, and in smaller urine: and so contrariwise, some that in greater quantity, move urine, and in smaller, stool. Of the former sort is rhubarb, and some others. The cause is, for that rhubarb is a medicine, which the stomach in a small quantity doth digest and overcome (being not flatuous nor loathsome) and so sendeth it to the mesenteric veins; and so being opening, it helpeth down urine: but in a greater quantity, the stomach cannot overcome it, and so it goeth to the guts. Pepper by some of the ancients is noted to be of the second sort; which being in small quantity, moveth wind in the stomach and guts, and so expelleth by stool; but being in greater quantity, dissipateth the wind; and itself getteth to the mesenteric veins, and so to the liver and reins; where, by heating and opening, it sendeth down urine more plentifully.

*Experiments in consort touching meats and drinks that are most nourishing.*

45. WE have spoken of evacuating of the body; we will now speak something of the filling of it by restoratives in consumptions and emaciating diseases. In vegetables, there is one part that is more nourishing than another; as grains and roots nourish more, than the leaves; inasmuch as the order of the Foliatanes was put down by the pope, as finding leaves unable to nourish man's body. Whether there be that difference in the flesh of living creatures, is not well inquired; as whether livers, and other entrails, be not more nourishing than the outward flesh. We find that amongst the Romans, a goose's liver was a great delicacy; inasmuch as they had artificial means to make it fair and great; but whether it were more nourishing, appeareth not. It is certain, that marrow is more nourishing than fat. And I conceive that some decoction of bones and  
sinews,



finews, stamped and well strained, would be a very nourishing broth: we find also that Scotch skinck (which is a pottage of strong nourishment) is made with the knees and sinews of beef, but long boiled: jelly also, which they use for a restorative, is chiefly made of knuckles of veal. The pulp that is within the crawfish or crab, which they spice and butter, is more nourishing than the flesh of the crab or crawfish. The yolks of eggs are clearly more nourishing than the whites. So that it should seem, that the parts of living creatures that lie more inwards, nourish more than the outward flesh; except it be the brain: which the spirits prey too much upon, to leave it any great virtue of nourishment. It seemeth for the nourishing of aged men, or men in consumptions, some such thing should be devised, as should be half chylus, before it be put into the stomach.

46. TAKE two large capons; perboil them upon a soft fire, by the space of an hour or more, till in effect all the blood be gone. Add in the decoction the pill of a sweet lemon, or a good part of the pill of a citron, and a little mace. Cut off the shanks, and throw them away. Then with a good strong chopping-knife, mince the two capons, bones and all, as small as ordinary minced meat; put them into a large neat boulder; then take a kilderkin, sweet, and well seasoned, of four gallons of beer, of 8s. strength, new as it cometh from the tunning; make in the kilderkin a great bung-hole of purpose: then thrust into it the boulder (in which the capons are) drawn out in length; let it steep in it three days and three nights, the bung-hole open, to work; then close the bung-hole, and so let it continue a day and a half; then draw it into bottles, and you may drink it well after three days bottling; and it will last six weeks (approved.) It drinketh fresh, flowreth and mantleth exceedingly; it drinketh not newish at all; it is an excellent drink for a consumption, to be drunk either alone, or carded with some other beer. It quenbeth thirst, and hath no whit of windiness. Note, that it is not possible, that meat and bread, either in broths, or taken with drink, as is used, should get forth into the veins and outward parts, so finely and easily, as when it is thus incorporate, and made almost a chylus aforehand.

47. TRIAL would be made of the like brew with potado roots, or burr roots, or the pith of artichokes, which are nourishing meats: it may be tried also with other flesh; as pheasant, partridge, young pork, pig, venison, especially of young deer, *etc.*

48. A MORTRESS made with the brawn of capons, stamped, and strained, and mingled (after it is made) with like quantity (at the least) of almond butter, is an excellent meat to nourish those that are weak; better than black-manger, or jelly: and so is the cullice of cocks, boiled thick with the like mixture of almond butter: for the mortress or cullice, of itself, is more savoury and strong, and not so fit for nourishing of weak bodies; but the almonds, that are not of so high a taste as flesh, do excellently qualify it.

49. INDIAN maiz hath (of certain) an excellent spirit of nourishment; but it must be thoroughly boiled, and made into a maiz-cream like a barley-cream. I judge the same of rice, made into a cream; for rice is in Turkey, and other countries of the east, most sed upon; but it must be thoroughly boiled in respect of the hardness of it, and also because otherwise it bindeth the body too much.

50. PISTACHOES, so they be good, and not musty, joined with almonds in almond milk; or made into a milk of themselves, like unto almond milk, but more green; are an excellent nourisher: but you shall do well, to add a little ginger, scraped, because they are not without some subtile windiness.

51. MILK warm from the cow, is found to be a great nourisher, and a good remedy in consumptions: but then you must put into it, when you milk the cow, two little bags; the one of powder of mint, the other of powder of red roses; for they keep the milk somewhat from turning, or curdling in the stomach; and put in sugar also, for the same cause, and partly for the taste's sake; but you must drink a good draught, that it may stay less time in the stomach, lest it curdle: and let the cup into which you milk the cow, be set in a greater cup of hot water, that you may take it warm. And cow milk thus prepared,



I judge to be better for a consumption, than ass milk, which (it is true) turneth not so easily, but it is a little harsh; marry it is more proper for sharpness of urine, and exulceration of the bladder, and all manner of lenifings. Woman's milk likewise is prescribed, when all fail; but I commend it not, as being a little too near the juice of man's body, to be a good nourisher; except it be in infants, to whom it is natural.

52. OIL of sweet almonds, newly drawn, with sugar, and a little spice, spread upon bread toasted, is an excellent nourisher: but then to keep the oil from frying in the stomach, you must drink a good draught of mild beer after it; and to keep it from relaxing the stomach too much, you must put in a little powder of cinnamon.

53. THE yolks of eggs are of themselves so well prepared by nature for nourishment, as (so they be poached, or rare boiled) they need no other preparation or mixture; yet they may be taken also raw, when they are new laid, with Malmsey, or sweet wine; you shall do well to put in some few slices of eryngium roots, and a little ambergrice; for by this means, besides the immediate faculty of nourishment, such drink will strengthen the back; so that it will not draw down the urine too fast; for too much urine doth always hinder nourishment.

54. MINCING of meat, as in pies, and buttered minced meat, saveth the grinding of the teeth; and therefore (no doubt) it is more nourishing, especially in age, or to them that have weak teeth; but the butter is not so proper for weak bodies; and therefore it were good to moisten it with a little claret wine, pill of lemon, or orange, cut small, sugar, and a very little cinnamon, or nutmeg. As for chuets, which are likewise minced meat, instead of butter and fat, it were good to moisten them, partly with cream, or almond, or pistacho milk; or barley, or maiz cream; adding a little coriander seed and caraway seed, and a very little saffron. The more full handling of alimentation we reserve to the due place.

We have hitherto handled the particulars which yield best, and easiest, and plentifullest nourishment; and now we will speak of the best means of conveying and converting the nourishment.

55. THE first means is, to procure that the nourishment may not be robbed and drawn away; wherein that which we have already said is very material; to provide, that the reins draw not too strongly an over-great part of the blood into urine. To this add that precept of Aristotle, that wine be forborn in all consumptions; for that the spirits of the wine do prey upon the roscid juice of the body, and inter-common with the spirits of the body, and so deceive and rob them of their nourishment. And therefore if the consumption, growing from the weakness of the stomach, do force you to use wine, let it always be burnt, that the quicker spirits may evaporate; or, at the least, quenched with two little wedges of gold, six or seven times repeated. Add also this provision, that there be not too much expence of the nourishment, by exhaling and sweating: and therefore if the patient be apt to sweat, it must be gently restrained. But chiefly Hippocrates's rule is to be followed, who adviseth quite contrary to that which is in use: namely, that the linen, or garment next the flesh, be in winter dry, and oft changed; and in summer seldom changed, and smeared over with oil; for certain it is, that any substance that is fat, doth a little fill the pores of the body, and stay sweat, in some degree: but the more cleanly way is, to have the linen smeared lightly over with oil of sweet almonds; and not to forbear shifting as oft as is fit.

56. THE second means is, to send forth the nourishment into the parts more strongly; for which the working must be by strengthening of the stomach; and in this, because the stomach is chiefly comforted by wine and hot things, which otherwise hurt; it is good to resort to outward applications to the stomach: Wherein it hath been tried, that the quilts of roses, spices, massick, wormwood, mint, *etc.* are nothing so helpful, as to take a cake of new bread, and to bedew it with a little sack, or Alicant; and to dry it; and after it be dried a little before the fire, to put it within a clean napkin, and to lay it to the stomach; for it is certain, that all flower hath a potent virtue of astringion; in so much as it harden-



eth a piece of flesh, or a flower, that is laid in it: and therefore a bag quilted with bran is likewise very good; but it drieth somewhat too much, and therefore it must not lie long.

57. THE third means (which may be a branch of the former) is to send forth the nourishment the better by sleep. For we see, that bears, and other creatures that sleep in the winter, wax exceeding fat: and certain it is (as it is commonly believed) that sleep doth nourish much; both for that the spirits do less spend the nourishment in sleep, than when living creatures are awake: and because (that which is to the present purpose) it helpeth to thrust out the nourishment into the parts. Therefore in aged men, and weak bodies, and such as abound not with choler, a short sleep after dinner doth help to nourish; for in such bodies there is no fear of an over-hasty digestion, which is the inconvenience of postmeridian sleeps. Sleep also in the morning, after the taking of somewhat of easy digestion, as milk from the cow, nourishing broth, or the like, doth further nourishment: but this would be done sitting upright, that the milk or broth may pass the more speedily to the bottom of the stomach.

58. THE fourth means is to provide that the parts themselves may draw to them the nourishment strongly. There is an excellent observation of Aristotle; that a great reason, why plants (some of them) are of greater age than living creatures, is, for that they yearly put forth new leaves and boughs: whereas living creatures put forth (after their period of growth) nothing that is young, but hair and nails, which are excrements, and no parts. And it is most certain, that whatsoever is young, doth draw nourishment better than that which is old; and then (that which is the mystery of that observation) young boughs, and leaves, calling the sap up to them, the same nourisheth the body in the passage. And this we see notably proved also, in that the oft cutting, or polling of hedges, trees, and herbs, doth conduce much to their lasting. Transfer therefore this observation to the helping of nourishment in living creatures: the noblest and principal use whereof is, for the prolongation of life; refection of some degree of youth; and inteneration of the parts: for certain it is, that there are in living creatures parts that nourish and repair easily, and parts that nourish and repair hardly: and you must refresh and renew those that are easy to nourish, that the other may be refreshed, and (as it were) drink in nourishment in the passage. Now we see that draught oxen, put into good pasture, recover the flesh of young beef; and men after long emaciating diets wax plump and fat, and almost new: so that you may surely conclude, that the frequent and wise use of those emaciating diets, and of purgings, and perhaps of some kind of bleeding, is a principal means of prolongation of life, and restoring some degree of youth: for, as we have often said, death cometh upon living creatures like the torment of Mezentius:

*Mortua quin etiam jungebat corpora vivis,*

*Componentis manibusque manus, atque orbis ora.* Æn. viii. 485.

For the parts in man's body easily repairable (as spirits, blood, and flesh) die in the embracement of the parts hardly repairable (as bones, nerves, and membranes;) and likewise some entrails (which they reckon amongst the spermatical parts) are hard to repair: though that division of spermatical and menstrual parts be but a conceit. And this same observation also may be drawn to the present purpose of nourishing emaciated bodies: and therefore gentle friction draweth forth the nourishment, by making the parts a little hungry, and heating them; whereby they call forth nourishment the better. This friction I wish to be done in the morning. It is also best done by the hand, or a piece of scarlet wool, wet a little with oil of almonds, mingled with a small quantity of bay-salt, or saffron; we see that the very currying of horses doth make them fat, and in good liking.

59. THE fifth means is, to further the very act of assimilation of nourishment; which is done by some outward emollients, that make the parts more apt to assimilate. For which I have compounded an ointment of excellent odour, which I call Roman ointment; *vide* the receipt. The use of it would be between sleeps; for in the latter sleep the parts assimilate chiefly.

*Experiment*



*Experiment Solitary touching Filum medicinale.*

60. THERE be many medicines, which by themselves would do no cure, but perhaps hurt; but being applied in a certain order, one after another, do great cures. I have tried (myself) a remedy for the gout, which hath seldom failed, but driven it away in twenty four hours space: it is first to apply a poultis, of which *vide* the receipt, and then a bath or fomentation, of which *vide* the receipt; and then a plaister, *vide* the receipt. The poultis relaxeth the pores, and maketh the humour apt to exhale. The fomentation calleth forth the humour by vapours; but yet in regard of the way made by the poultis, draweth gently; and therefore draweth the humour out, and doth not draw more to it; for it is a gentle fomentation, and hath withal a mixture (though very little) of some stupefactive. The plaister is a moderate astringent plaister, which repelleth new humour from falling. The poultis alone would make the part more soft and weak, and apter to take the defluxion and imprefion of the humour. The fomentation alone, if it were too weak, without way made by the poultis, would draw forth little; if too strong, it would draw to the part, as well as draw from it. The plaister alone would pen the humour already contained in the part, and so exasperate it, as well as forbid new humour. Therefore they must be all taken in order, as is said. The poultis is to be laid to for two or three hours: the fomentation for a quarter of an hour, or somewhat better, being used hot, and seven or eight times repeated: the plaister to continue on still, till the part be well confirmed.

*Experiment Solitary touching cure by custom.*

61. THERE is a secret way of cure (unpractised) by assuetude of that which in itself hurteth. Poisons have been made, by some, familiar, as hath been said. Ordinary keepers of the sick of the plague are seldom infected. Enduring of tortures, by custom, hath been made more easy: the brooking of enormous quantity of meats, and so of wine or strong drink, hath been, by custom, made to be without surfeit or drunkenness. And generally diseases that are chronicall, as coughs, phthisicks, some kinds of palsies, lunacies, *etc.* are most dangerous at the first: therefore a wise physician will consider whether a disease be incurable; or whether the just cure of it be not full of peril; and if he find it to be such, let him resort to palliation; and alleviate the symptom, without buying himself too much with the perfect cure: and many times (if the patient be indeed patient) that course will exceed all expectation. Likewise the patient himself may strive, by little and little, to overcome the symptom in the exacerbation, and so, by time, turn suffering into nature.

*Experiment Solitary touching cure by excess.*

62. DIVERS diseases, especially chronicall (such as quartan agues) are sometimes cured by surfeit and excesses: as excess of meat, excess of drink, extraordinary fasting, extraordinary stirring or lassitude, and the like. The cause is, for that diseases of continuance get an adventitious strength from custom, besides their material cause from the humours: so that the breaking of the custom doth leave them only to their first cause; which if it be any thing weak will fall off. Besides, such excesses do excite and spur nature, which thereupon rises more forcibly against the disease.

*Experiment Solitary touching cure by motion of consent.*

63. THERE is in the body of man a great consent in the motion of the several parts. We see, it is children's sport, to prove whether they can rub upon their breast with one hand, and pat upon their forehead with another; and straightways they shall sometimes rub with both hands, or pat with both hands. We see, that when the spirits that come to the nostrils, expel a bad scent, the stomach is ready to expel by vomit. We find that in consumptions of the lungs, when nature cannot expel by cough, men fall into fluxes of the belly, and then they die. So in pestilent diseases, if they cannot be expelled by sweat, they fall likewise into looseness; and that is commonly mortal. Therefore physicians should ingeniously



contrive, how by emotions that are in their power, they may excite inward motions that are not in their power, by consent : as by the stench of feathers, or the like, they cure the ring of the mother.

*Experiment solitary touching cure of diseases which are contrary to predisposition.*

64. HIPPOCRATES' aphorism, in *morbis minus*, is a good profound aphorism. It importeth, that diseases, contrary to the complexion, age, sex, season of the year, diet, *etc.* are more dangerous than those that are concurrent. A man would think it should be otherwise; for that, when the accident of sickness, and the natural disposition, do second the one the other, the disease should be more forcible: and so (no doubt) it is, if you suppose like quantity of matter. But that which maketh good the aphorism, is, because such diseases do shew a greater collection of matter, by that they are able to overcome those natural inclinations to the contrary. And therefore in diseases of that kind, let the physician apply himself more to purgation, than to alteration; because the offence is in the quantity; and the qualities are rectified of themselves.

*Experiment solitary touching preparations before purging, and setting of the body afterward.*

65. PHYSICIANS do wisely prescribe, that there be preparatives used before just purgations; for certain it is, that purgers do many times great hurt, if the body be not accommodated, both before and after the purging. The hurt that they do, for want of preparation before purging, is by the sticking of the humours, and their not coming fair away; which causeth in the body great perturbations, and ill accidents, during the purging; and also the diminishing and dulling of the working of the medicine itself, that it purgeth not sufficiently: therefore the work of preparation is double; to make the humours fluid and mature, and to make the passages more open: for both those help to make the humours pass readily. And for the former of these, syrups are most profitable; and for the latter, apozemes, or preparing broths; clysters also help lest the medicine stop in the guts, and work gripingly. But it is true, that bodies abounding with humours, and fat bodies, and open weather, are preparatives in themselves; because they make the humours more fluid. But let a physician beware, how he purge after hard frosty weather, and in a lean body, without preparation. For the hurt that they may do after purging, it is caused by the lodging of some humours in ill places: for it is certain, that there be humours, which somewhere placed in the body, are quiet, and do little hurt; in other places (especially passages) do much mischief. Therefore it is good, after purging, to use apozemes and broths, not so much opening as those used before purging; but absterive and mundifying clysters also are good to conclude with, to draw away the reliques of the humours, that may have descended to the lower region of the body.

*Experiment solitary touching stanching of blood.*

66. BLOOD is stanch'd divers ways. First, by astringents, and repulsive medicines. Secondly, by drawing of the spirits and blood inwards; which is done by cold; as iron or a stone laid to the neck, doth stanch the bleeding at the nose; also it hath been tried, that the testicles being put into sharp vinegar, hath made a sudden recels of the spirits, and stanch'd blood. Thirdly, by the recels of the blood by sympathy. So it hath been tried, that the part that bleedeth, being thrust into the body of a capon, or sheep, new ript and bleeding, hath stanch'd blood; the blood, as it seemeth, sucking and drawing up, by similitude of substance, the blood it meeteth with, and so itself going back. Fourthly, by custom and time; so the Prince of Orange, in his first hurt by the Spanish boy, could find no means to stanch the blood, either by medicine or ligament; but was fain to have the orifice of the wound stopp'd by mens thumbs, succeeding one another; for the space at the least of two days; and at the last the blood by custom only retired. There is a fifth way also in use, to let blood in an adverse part, for a revulsion.



*Experiment solitary touching change of aliments and medicines.*

67. It helpeth, both in medicine and aliment, to change and not to continue the same medicine and aliment still. The cause is, for that nature, by continual use of any thing, groweth to a satiety and dullness, either of appetite or working. And we see that assuetude of things hurtful doth make them lose their force to hurt; as poison, which with use some have brought themselves to brook. And therefore it is no marvel, though things helpful by custom lose their force to help: I count intermission almost the same thing with change; for that, that hath been intermitted, is after a sort new.

*Experiment solitary touching diets.*

68. It is found by experience, that in diets of guaicum, farza, and the like, (especially if they be strict) the patient is more troubled in the beginning, than after continuance; which hath made some of the more delicate sort of patients give them over in the midst; supposing that if those diets trouble them so much at first, they shall not be able to endure them to the end. But the cause is, for that all those diets do dry up humours, rheums, and the like; and they cannot dry up until they have first attenuated; and while the humour is attenuated, it is more fluid than it was before, and troubleth the body a great deal more, until it be dried up and consumed. And therefore patients must expect a due time, and not keek at them at the first.

*Experiments in consort touching the production of cold.*

The producing of cold is a thing very worthy the inquisition; both for use, and disclosure of causes. For heat and cold are nature's two hands, whereby she chiefly worketh: and heat we have in readiness, in respect of the fire; but for cold we must stay till it cometh, or seek it in deep caves, or high mountains: and when all is done, we cannot obtain it in any great degree: for furnaces of fire are far hotter than a summer's sun; but vaults or hills are not much colder than a winter's frost.

69. The first means of producing cold, is that which nature presenteth us withal; namely, the expiring of cold out of the inward parts of the earth in winter, when the sun hath no power to overcome it; the earth being (as hath been noted by some) *primum frigidum*. This hath been asserted, as well by ancient, as by modern philosophers: it was the tenet of Parmenides. It was the opinion of the author of the discourse in Plutarch (for, I take it, that book was not Plutarch's own) *De primo frigido*. It was the opinion of Telesius, who hath renewed the philosophy of Parmenides, and is the best of the novelists.

70. The second cause of cold is the contact of cold bodies; for cold is active and transitive into bodies adjacent, as well as heat: which is seen in those things that are touched with snow or cold water. And therefore, whosoever will be an inquirer into nature, let him resort to a conservatory of snow and ice; such as they use for delicacy, to cool wine in summer: which is a poor and contemptible use, in respect of other uses, that may be made of such conservatories.

71. The third cause is the primary nature of all tangible bodies: for it is well to be noted, that all things whatsoever (tangible) are of themselves cold; except they have an accessory heat by fire, life, or motion: for even the spirit of wine, or chemical oils, which are so hot in operation, are to the first touch cold; and air itself compressed, and condensed a little by blowing, is cold.

72. The fourth cause is the density of the body; for all dense bodies are colder than most other bodies; as metals, stone, glass; and they are longer in heating than softer bodies. And it is certain, that earth, dense, tangible, hold all of the nature of cold. The cause is, for that all matters tangible being cold, it must needs follow, that where the matter is most congregate, the cold is the greater.

73. The fifth cause of cold, or rather of increase and vehemency of cold, is a quick spirit inclosed in a cold body: as will appear to any that shall attentively consider of nature in many instances. We see nitre (which hath a quick spirit) is



## CENT. I.

is cold; more cold to the tongue than a stone; so water is colder than oil, because it hath a quicker spirit; for all oil, though it hath the tangible parts better digested than water, yet hath it a duller spirit: so snow is colder than water, because it hath more spirit within it: so we see that salt put to ice (as in the producing of the artificial ice) increaseth the activity of cold: so some *insecta* which have spirit of life, as snakes and silk-worms, are to the touch cold. So quicksilver is the coldest of metals, because it is fullest of spirit.

74. THE sixth cause of cold is the chasing and driving away of spirits, such as have some degree of heat: for the banishing of the heat must needs leave any body cold. This we see in the operation of opium, and stupefactives, upon the spirits of living creatures: and it were not amiss to try opium, by laying it upon the top of a weather-glass, to see whether it will contract the air: but I doubt it will not succeed; for besides that the virtue of opium will hardly penetrate through such a body as glass, I conceive that opium, and the like, make the spirits fly rather by malignity, than by cold.

75. SEVENTHLY, the same effect must follow upon the exhaling or drawing out of the warm spirits, that doth upon the flight of the spirits. There is an opinion, that the moon is magnetical of heat, as the sun is of cold and moisture: it were not amiss therefore to try it, with warm waters; the one exposed to the beams of the moon, the other with some screen betwixt the beams of the moon and the water; as we use to the sun for shade; and to see whether the former will cool sooner. And it were also good to enquire, what other means there may be to draw forth the exile heat which is in the air; for that may be a secret of great power to produce cold weather.

*Experiments in consort touching the version and transmutation of air into water.*

We have formerly set down the means of turning air into water, in the experiment 27. But because it is *magnale naturae*, and tendeth to the subduing of a very great effect, and is also of manifold use, we will add some instances in consort that give light thereunto.

76. It is reported by some of the ancients, that sailors have used, every night, to hang fleeces of wool on the sides of their ships, the wool towards the water; and that they have crushed fresh water out of them, in the morning, for their use. And thus much we have tried, that a quantity of wool tied loose together, being let down into a deep well, and hanging in the middle, some three fathom from the water, for a night, in the winter-time; increased in weight (as I now remember) to a fifth part.

77. It is reported by one of the ancients, that in Lydia, near Pergamus, there were certain workmen in time of wars fled into caves; and the mouth of the caves being stopped by the enemies, they were famished. But long time after the dead bones were found; and some vessels which they had carried with them; and the vessels full of water; and that water thicker, and more towards ice, than common water: which is a notable instance of condensation and induration by burial under earth (in caves) for long time; and of version also (as it should seem) of air into water; if any of those vessels were empty. Try therefore a small bladder hung in snow, and the like in nitre, and the like in quicksilver: and if you find the bladders fallen or shrunk, you may be sure the air is condensed by the cold of those bodies, as it would be in a cave under earth.

78. It is reported of very good credit, that in the East Indies, if you set a tub of water open in a room where cloves are kept, it will be drawn dry in twenty four hours; though it stand at some distance from the cloves. In the country, they use many times, in deceit, when their wool is new shorn, to set some pails of water by in the same room, to increase the weight of the wool. But it may be, that the heat of the wool, remaining from the body of the sheep, or the heat gathered by the lying close of the wool, helpeth to draw the watry vapour; but that is nothing to the version.

79. It is reported also credibly, that wool new shorn, being laid casually upon a vessel of verjuice, after some time, had drunk up a great part of the verjuice, though the vessel were whole without any flaw, and had not the bung-hole open.



In this instance, there is (upon the by) to be noted, the percolation or siving of the verjuice through the wood; for verjuice of itself would never have passed through the wood: so as, it seemeth, it must be first in a kind of vapour, before it pass.

80. It is especially to be noted, that the cause that doth facilitate the version of air into water, when the air is not in gross, but subtilly mingled with tangible bodies, is (as hath been partly touched before) for that tangible bodies have an antipathy with air; and if they find any liquid body that is more dense near them, they will draw it: and after they have drawn it, they will condense it more, and in effect incorporate it; for we see that a sponge, or wool, or sugar, or a woollen cloth, being put but in part in water, or wine, will draw the liquor higher, and beyond the place where the water or wine cometh. We see also, that wood, lute strings, and the like, do swell in moist seasons: as appeareth by the breaking of the strings, the hard turning of the pegs, and the hard drawing forth of boxes, and opening of wainscot doors; which is a kind of infusion: and is much like to an infusion in water, which will make wood to swell: as we see in the filling of the chops of bowls, by laying them in water. But for that part of these experiments which concerneth attraction, we will reserve it to the proper title of attraction.

81. THERE is also a version of air into water seen in the sweating of marbles and other stones; and of wainscot before and in moist weather. This must be, either by some moisture the body yieldeth; or else by the moist air thickened against the hard body. But it is plain, that it is the latter; for that we see wood painted with oil colour, will sooner gather drops in a moist night, than wood alone; which is caused by the smoothness and closeness; which letteth in no part of the vapour, and so turneth it back, and thickneth it into dew. We see also, that breathing upon a glass, or smooth body, giveth a dew; and in frosty mornings (such as we call rime frosts) you shall find drops of dew upon the inside of glass windows; and the frost itself upon the ground is but a version or condensation of the moist vapours of the night, into a watry substance: dews likewise, and rain, are but the returns of moist vapours condensed; the dew, by the cold only of the sun's departure, which is the gentler cold; rains, by the cold of that which they call the middle region of the air; which is the more violent cold.

82. It is very probable (as hath been touched) that that which will turn water into ice, will likewise turn air some degree nearer unto water. Therefore try the experiment of the artificial turning water into ice (whereof we shall speak in another place) with air in place of water, and the ice about it. And although it be a greater alteration to turn air into water, than water into ice; yet there is this hope, that by continuing the air longer time, the effect will follow: for that artificial conversion of water into ice, is the work of a few hours; and this of air may be tried by a month's space, or the like.

*Experiments in consort touching induration of bodies.*

INDURATION, or lapidification of substances more soft, is likewise another degree of condensation; and is a great alteration in nature. The effecting and accelerating thereof is very worthy to be inquired. It is effected by three means. The first is by cold; whose property is to condense and conflate, as hath been said. The second is by heat; which is not proper but by consequence; for the heat doth attenuate; and by attenuation doth send forth the spirit and moister part of a body; and upon that, the more gross of the tangible parts do contract and ferre themselves together; both to avoid *vacuum* (as they call it) and also to munite themselves against the force of the fire, which they have suffered. And the third is by assimilation; when a hard body assimilateth a soft, being contiguous to it.

The examples of induration, taking them promiscuously, are many: as the generation of stones within the earth, which at the first are but rude earth or clay; and so of minerals, which come (no doubt) at first of juices concrete, which afterward indurate: and so of porcellane, which is an artificial cement, buried in the earth a long time; and so the making of brick and tile: also the making of glass of a certain sand and brake-roots, and some other matters; also the exudations of rock-diamonds and crystal, which harden with time: also the induration of bead-amber,



## CENT. I.

bead-amber, which at first is a soft substance; as appeareth by the flies and spiders which are found in it; and many more: but we will speak of them distinctly.

83. For indurations by cold, there be few trials of it; for we have no strong or intense cold here on the surface of the earth, so near the beams of the sun, and the heavens. The likeliest trial is by snow and ice; for as snow and ice, especially being holpen and their cold activated by nitre or salt, will turn water into ice, and that in a few hours; so it may be, it will turn wood or stiff clay into stone, in longer time. Put therefore into a conserving pit of snow and ice (adding some quantity of salt and nitre) a piece of wood, or a piece of tough clay, and let it lie a month or more.

84. ANOTHER trial is by metalline waters, which have virtual cold in them. Put therefore wood or clay into smiths water, or other metalline water, and try whether it will not harden in some reasonable time. But I understand it of metalline waters that come by washing or quenching; and not of strong waters that come by dissolution; for they are too corrosive to consolidate.

85. It is already found, that there are some natural spring-waters, that will inlapi date wood; so as you shall see one piece of wood, whereof the part above the water shall continue wood; and the part under water shall be turned into a kind of gravelly stone. It is likely those waters are of some metalline mixture; but there would be more particular inquiry made of them. It is certain, that an egg was found, having lain many years in the bottom of a mote, where the earth had somewhat overgrown it; and this egg was come to the hardness of a stone, and had the colours of the white and yolk perfect, and the shell shining in small grains like sugar, or alabaster.

86. ANOTHER experience there is of induration by cold, which is already found; which is, that metals themselves are hardened by often heating and quenching in cold water: for cold ever worketh most potently upon heat precedent.

87. For induration by heat, it must be considered, that heat, by the exhaling of the moister parts, doth either harden the body, as in bricks, tiles, *etc.* or if the heat be more fierce, maketh the grosser part itself run and melt; as in the making of ordinary glass; and in the vitrification of earth (as we see in the inner parts of furnaces) and in the vitrification of brick; and of metals. And in the former of these, which is the hardening by baking without melting, the heat hath these degrees; first, it indurath; and then maketh fragile; and lastly it doth incinerate and calcinate.

88. BUT if you desire to make an induration with toughness, and less fragility, a middle way would be taken; which is that which Aristotle hath well noted; but would be thoroughly verified. It is to decoct bodies in water for two or three days; but they must be such bodies into which the water will not enter; as stone and metal: for if they be bodies, into which the water will enter, then long seething will rather soften than indurate them; as hath been tried in eggs, *etc.* therefore softer bodies must be put into bottles, and the bottles hung into water seething, with the mouths open above the water, that no water may get in; for by this means the virtual heat of the water will enter; and such a heat, as will not make the body adust, or fragile; but the substance of the water will be shut out. This experiment we made; and it sorted thus. It was tried with a piece of free-stone, and with pewter, put into the water at large. The free-stone we found received in some water; for it was softer and easier to scrape than a piece of the same stone kept dry. But the pewter, into which no water could enter, became more white, and liker to silver, and less flexible by much. There were also put into an earthen bottle, placed as before, a good pellet of clay, a piece of cheese, a piece of chalk, and a piece of free-stone. The clay came forth almost of the hardness of stone; the cheese likewise very hard, and not well to be cut: the chalk and the free-stone much harder than they were. The colour of the clay inclined not a whit to the colour of brick, but rather to white, as in ordinary drying by the sun. Note, that all the former trials were made by a boiling upon a good hot fire, renewing the water as it consumed, with other hot water; but the boiling was but for twelve hours only; and it is like that the experiment would have been more effectual, if the boiling had been for two or three days, as we prescribed before.



89. As touching assimilation (for there is a degree of assimilation even in inanimate bodies) we see examples of it in some stones in clay-grounds, lying near to the top of the earth, where pebble is; in which you may manifestly see divers pebbles gathered together, and a crust of cement or stone between them, as hard as the pebbles themselves: and it were good to make a trial of purpose, by taking clay, and putting in it divers pebble stones, thick set, to see whether in continuance of time it will not be harder than other clay of the same lump, in which no pebbles are set. We see also in ruins of old walls, especially towards the bottom, the mortar will become as hard as the brick: we see also, that the wood on the sides of vessels of wine, gathereth a crust of tartar, harder than the wood itself; and scales likewise grow to the teeth, harder than the teeth themselves.

90. Most of all, induration by assimilation appeareth in the bodies of trees and living creatures: for no nourishment that the tree receiveth, or that the living creature receiveth, is so hard as wood, bone, or horn, *etc.* but is indurated after by assimilation.

*Experiment solitary touching the version of water into air.*

91. THE eye of the understanding is like the eye of the sense: for as you may see great objects through small cranies, or levels; so you may see great axioms of nature through small and contemptible instances. The speedy depredation of air upon watry moisture, and version of the same into air, appeareth in nothing more visible, than in the sudden discharge, or vanishing, of a little cloud of breath, or vapour, from glass, or the blade of a sword, or any such polished body, such as doth not at all detain or imbibe the moisture; for the mistiness scattereth and breaketh up suddenly. But the like cloud, if it were oily or fatty, will not discharge; not because it sticketh faster; but because air preyeth upon water; and flame, and fire, upon oil; and therefore, to take out a spot of grease, they use a coal upon brown paper; because fire worketh upon grease, or oil, as air doth upon water. And we see paper oiled, or wood oiled, or the like, last long moist; but wet with water, dry or putrify sooner. The cause is, for that air meddeth little with the moisture of oil.

*Experiment solitary touching the force of union.*

92. THERE is an admirable demonstration, in the same trifling instance of the little cloud upon glass, or gems, or blades of swords, of the force of union, even in the least quantities, and weakest bodies, how much it conduceth to preservation of the present form, and the resisting of a new. For mark well the discharge of that cloud; and you shall see it ever break up, first in the skirts, and last in the midst. We see likewise, that much water draweth forth the juice of the body infused; but little water is imbibed by the body: and this is a principal cause, why in operation upon bodies for their version or alteration, the trial in great quantities doth not answer the trial in small; and so deceiveth many; for that (I say) the greater body resisteth more any alteration of form, and requireth far greater strength in the active body that should subdue it.

*Experiment solitary touching the producing of feathers and hairs of divers colours.*

93. WE have spoken before, in the fifth instance, of the cause of orient colours in birds; which is by the fineness of the strainer; we will now endeavour to reduce the same axiom to a work. For this writing of our *Sylva Sylvarum* is (to speak properly) not natural history, but a high kind of natural magick. For it is not a description only of nature but a breaking of nature into great and strange works. Try therefore the anointing over of pigeons, or other birds, when they are but in their down; or of whelps, cutting their hair as short as may be; or of some other beast; with some ointment that is not hurtful to the flesh, and that will harden and stick very close; and see whether it will not alter the colours of the feathers or hair. It is received, that the pulling off the first feathers of birds clean, will make the new come forth white; and it is certain, that white is a penurious colour, and where moisture is scant. So blue violets, and other flowers, if they be starved, turn pale and white; birds andhortes, by age or scars, turn white:



white: and the hoar hairs of men come by the same reason. And therefore in birds, it is very likely, that the feathers that come first, will be many times of divers colours, according to the nature of the bird, for that the skin is more porous; but when the skin is more shut and close, the feathers will come white. This is a good experiment, not only for the producing of birds and beasts of strange colours; but also for the disclosure of the nature of colours themselves; which of them require a finer porosity, and which a grosser.

*Experiment Solitary touching the nourishment of living creatures before they be brought forth.*

94. It is a work of providence, that hath been truly observed by some; that the yolk of the egg conduceth little to the generation of the bird, but only to the nourishment of the same: for if a chicken be opened, when it is new hatched; you shall find much of the yolk remaining. And it is needful, that birds that are shaped without the female's womb, have in the egg, as well matter of nourishment, as matter of generation for the body. For after the egg is laid, and severed from the body of the hen, it hath no more nourishment from the hen; but only a quickning heat when she sitteth. But beasts and men need not the matter of nourishment within themselves; because they are shaped within the womb of the female, and are nourished continually from her body.

*Experiments in consort touching sympathy and antipathy for medicinal use.*

95. It is an inveterate and received opinion, that cantharides applied to any part of the body, touch the bladder, and exulcerate it, if they stay on long. It is likewise received, that a kind of stone, which they bring out of the West-Indies, hath a peculiar force to move gravel, and to dissolve the stone; inso-much, as laid but to the wrist, it hath so forcibly sent down gravel, as men have been glad to remove it, it was so violent.

96. It is received, and confirmed by daily experience, that the soles of the feet have great affinity with the head, and the mouth of the stomach: as we see, going wet-shod, to those that use it not, affecteth both: applications of hot powders to the feet attenuate first, and after dry the rheum: and therefore a physician that would be mystical, prescribeth, for the cure of the rheum, that a man should walk continually upon a camomile-alley; meaning, that he should put camomile within his socks. Likewise pigeons bleeding, applied to the soles of the feet, ease the head: and soporiferous medicines applied unto them, provoke sleep.

97. It seemeth, that as the feet have a sympathy with the head; so the wrists and hands have a sympathy with the heart; we see the affects and passions of the heart and spirits are notably disclosed by the pulse: and it is often tried, that juices of stock-gilly-flowers, rose-campian, garlick, and other things, applied to the wrists, and renewed, have cured long agues. And I conceive, that washing, with certain liquors, the palms of the hands doth much good: and they do well in heats of agues, to hold in the hands eggs of alabaster, and balls of crystal.

Of these things we shall speak more, when we handle the title of sympathy and antipathy in the proper place.

*Experiment Solitary touching the secret processes of nature.*

98. The knowledge of man (hitherto) hath been determined by the view, or sight; so that whatsoever is invisible, either in respect of the fineness of the body itself, or the smallness of the parts, or of the subtilty of the motion, is little inquired. And yet these be the things that govern nature principally; and without which you cannot make any true analysis and indication of the proceedings of nature. The spirits or pneumaticals, that are in all tangible bodies, are scarce known. Sometimes they take them for *vacuum*; whereas they are the most active of bodies. Sometimes they take them for air; from which they differ exceedingly, as much as wine from water; and as wood from earth.

Some-



Sometimes they will have them to be natural heat, or a portion of the element of fire; whereas some of them are crude and cold. And sometimes they will have them to be the virtues and qualities of the tangible parts which they see; whereas they are things by themselves. And then, when they come to plants and living creatures, they call them souls. And such superficial speculations they have, like prospectives, that shew things inward, when they are but paintings. Neither is this a question of words, but infinitely material in nature. For spirits are nothing else but a natural body, rarified to a proportion, and included in the tangible parts of bodies, as in an integument. And they be no less differing one from the other, than the dense or tangible parts; and they are in all tangible bodies whatsoever, more or less; and they are never (almost) at rest: and from them, and their motions, principally proceed arefaction, colligation, concoction, maturation, putrefaction, vivification, and most of the effects of nature: for, as we have figured them in our *Sapientia veterum*, in the fable of Proserpina, you shall in the infernal regiment hear little doings of Pluto, but most of Proserpina: for tangible parts in bodies are stupid things; and the spirits do (in effect) all. As for the differences of tangible parts in bodies, the industry of the chemists hath given some light, in discerning by their separations the oily, crude, pure, impure, fine, gross parts of bodies, and the like. And the physicians are content to acknowledge, that herbs and drugs have divers parts; as that opium hath a stupefactive part, and a heating part; the one moving sleep, the other a sweat following; and that rhubarb hath purging parts, and astrigent parts, *etc.* But this whole inquisition is weakly and negligently handled. And for the more subtle differences of the minute parts, and the posture of them in the body (which also hath great effects) they are not at all touched: as for the motions of the minute parts of bodies, which do so great effects, they have not been observed at all; because they are invisible, and incur not to the eye; but yet they are to be deprehended by experience: as Democritus said well, when they charged him to hold, that the world was made of such little motes, as were seen in the sun; *Atomus* (saith he) *necessitate rationis et experientiae esse convincitur; atomum enim nemo unquam vidit.* And therefore the tumult in the parts of solid bodies, when they are compressed, which is the cause of all flight of bodies through the air, and of other mechanical motions (as hath been partly touched before, and shall be thoroughly handled in due place) is not seen at all. But nevertheless, if you know it not, or inquire it not attentively and diligently, you shall never be able to discern, and much less to produce, a number of mechanical motions. Again, as to the motions corporal, within the enclosures of bodies, whereby the effects (which were mentioned before) pass between the spirits and the tangible parts (which are arefaction, colligation, concoction, maturation, *etc.*) they are not at all handled. But they are put off by the names of virtues, and natures, and actions, and passions, and such other logical words.

*Experiment solitary touching the power of heat.*

99. IT is certain, that of all powers in nature, heat is the chief; both in the frame of nature, and in the works of art. Certain it is likewise, that the effects of heat are most advanced, when it worketh upon a body without loss or dissipation of the matter; for that ever betrayeth the account. And therefore it is true, that the power of heat is best perceived in distillations which are performed in close vessels and receptacles. But yet there is a higher degree; for howsoever distillations do keep the body in cells and cloysters, without going abroad, yet they give space unto bodies to turn into vapour; to return into liquor; and to separate one part from another. So as nature doth expatiate, although it hath not full liberty: whereby the true and ultime operations of heat are not attained. But if bodies may be altered by heat, and yet no such reciprocation of rarefaction, and of condensation, and of separation, admitted; then it is like that this Proteus of matter, being held by the sleeves, will turn and change into many metamorphoses. Take therefore a square vessel of iron, in form of a cube, and let it have good thick and strong sides. Put into it a cube

of



of wood, that may fill it as close as may be; and let it have a cover of iron, as strong (at least) as the sides; and let it be well luted, after the manner of the chemists. Then place the vessel within burning coals, kept quick kindled for some few hours space. Then take the vessel from the fire, and take off the cover, and see what is become of the wood. I conceive, that since all inflammation and evaporation are utterly prohibited, and the body still turned upon itself, that one of these two effects will follow: either that the body of the wood will be turned into a kind of *amalgama*, (as the chemists call it) or that the finer part will be turned into air, and the grosser stick as it were baked, and incrustate upon the sides of the vessel; being become of a denser matter, than the wood itself, crude. And for another trial, take also water, and put it in the like vessel, stopped as before; but use a gentler heat, and remove the vessel sometimes from the fire; and again, after some small time, when it is cold, renew the heating of it; and repeat this alteration some few times: and if you can once bring to pass, that the water, which is one of the simplest of bodies, be changed in colour, odour, or taste, after the manner of compound bodies, you may be sure that there is a great work wrought in nature, and a notable entrance made into strange changes of bodies, and productions; and also a way made to do that by fire, in small time, which the sun and age do in long time. But of the admirable effects of this distillation in chole (for so we will call it) which is like the wombs and matrices of living creatures, where nothing expireth nor separateth, we will speak fully, in the due place; not that we aim at the making of Paracelsus' pygmies, or any such prodigious folies; but that we know the effects of heat will be such, as will scarce fall under the conceit of man, if the force of it be altogether kept in.

*Experiment solitary touching the impossibility of annihilation.*

100. THERE is nothing more certain in nature, than that it is impossible for any body to be utterly annihilated; but that, as it was the work of the omnipotency of God to make somewhat of nothing, so it requireth the like omnipotency to turn somewhat into nothing. And therefore it is well said by an obscure writer of the sect of the chemists; that there is no such way to effect the strange transmutations of bodies, as to endeavour and urge by all means the reducing of them to nothing. And herein is contained also a great secret of preservation of bodies from change; for if you can prohibit, that they neither turn into air, because no air cometh to them; nor go into the bodies adjacent, because they are utterly heterogeneous; nor make a round and circulation within themselves; they will never change, though they be in their nature never so perishable or mutable. We see, how flies, and spiders, and the like, get a sepulchre in amber, more durable than the monument and embalming of the body of any king. And I conceive the like will be of bodies put into quicksilver. But then they must be but thin, as a leaf, or a piece of paper or parchment; for if they have a greater crassitude, they will alter in their own body, though they spend not. But of this we shall speak more when we handle the title of conservation of bodies.



## NATURAL HISTORY.

## CENTURY II.

*Experiments in consort touching musick.*

MUSICK, in the practice, hath been well pursued, and in good variety; but in the theory, and especially in the yielding of the causes of the practice, very weakly; being reduced into certain mystical subtilties, of no use, and not much truth. We shall therefore, after our manner, join the contemplative and active part together.

101. ALL sounds are either musical sounds, which we call tones; whereunto there may be an harmony; which sounds are ever equal; as singing, the sounds of stringed and wind instruments, the ringing of bells, *etc.* or unmusical sounds, which are ever unequal; such as are the voice in speaking, all whisperings, all voices of beasts and birds (except they be singing birds) all percussions of stones, wood, parchment, skins (as in drums) and infinite others.

102. THE sounds that produce tones, are ever from such bodies as are in their parts and pores equal; as well as the sounds themselves are equal; and such are the percussions of metal, as in bells; of glass, as in the flipping of a drinking glass; of air, as in mens voices whilst they sing, in pipes, whistles, organs, stringed instruments, *etc.* and of water, as in the nightingale pipes of regals, or organs, and ether hydraulicks; which the ancients had, and Nero did so much esteem, but are now lost. And if any man think, that the string of the bow, and the string of the viol, are neither of them equal bodies; and yet produce tones, he is in an error. For the sound is not created between the bow or *plectrum*, and the string; but between the string and the air; no more than it is between the finger or quill, and the string in other instruments. So there are (in effect) but three percussions that create tones; percussions of metals (comprehending glass, and the like) percussions of air, and percussions of water.

103. THE diapason or eight in musick is the sweetest concord, in so much as it is in effect an unison; as we see in lutes that are strung in the base strings with two strings, one an eight above another; which make but as one sound. And every eighth note in ascent (as from eight to fifteen, from fifteen to twenty two, and so *in infinitum*) are but scales of diapason. The cause is dark, and hath not been rendered by any; and therefore would be better contemplated. It seemeth that air (which is the subject of sounds) in sounds that are not tones (which are all unequal, as hath been said) admitteth much variety; as we see in the voices of living creatures; and likewise in the voices of several men (for we are capable to discern several men by their voices) and in the conjugation of letters, whence articulate sounds proceed; which of all others are most various. But in the sounds which we call tones (that are ever equal) the air is not able to cast itself into any such variety; but is forced to recur into one and the same posture or figure, only differing in greatness and smallness. So we see figures may be made of lines, crooked and straight, in infinite variety, where there is inequality; but circles, or squares, or triangles equilateral (which are all figures of equal lines) can differ but in greater or lesser.

104. It is to be noted (the rather lest any man should think, that there is any thing in this number of eight, to create the diapason) that this computation of eight is a thing rather received, than any true computation. For a true computation ought ever to be, by distribution into equal portions. Now there be intervenient in the rise of eight (in tones) two beemolls, or half notes: so as if you divide



divide the tones equally, the eight is but seven whole and equal notes; and if you subdivide that into half-notes (as it is in the stops of a lute) it maketh the number of thirteen.

105. YET this is true; that in the ordinary rises and falls of the voice of man (not measuring the tone by whole notes, and half-notes, which is the equal measure) there fall out to be two beemolls (as hath been said) between the unison and the diapason: and this varying is natural. For if a man would endeavour to raise or fall his voice, still by half-notes, like the stops of a lute; or by whole notes alone without halves, as far as an eight; he will not be able to frame his voice unto it. Which sheweth, that after every three whole notes, nature requireth, for all harmonical use, one half-note to be interposed.

106. It is to be considered, that whatsoever virtue is in numbers, for con-  
ducing to concent of notes, is rather to be ascribed to the ante-number, than to the entire number; as namely, that the sound returneth after six or after twelve; so that the seventh or the thirteenth is not the matter, but the sixth or the twelfth; and the seventh and the thirteenth are but the limits and boundaries of the return.

107. THE concords in musick which are perfect or semiperfect, between the unison and the diapason, are the fifth, which is the most perfect; the third next; and the sixth, which is more harsh: and, as the ancients esteemed, and so do myself and some other yet, the fourth which they call diatessarion. As for the tenth, twelfth, thirteenth, and so in *infinitum*; they be but recurrences of the former, *viz.* of the third, the fifth, and the sixth; being an eight respectively from them.

108. For discords, the second and the seventh are of all others the most odious, in harmony, to the sense; whereof the one is next above the unison, the other next under the diapason: which may shew, that harmony requireth a competent distance of notes.

109. IN harmony, if there be not a discord to the base, it doth not disturb the harmony, though there be a discord to the higher parts; so the discord be not of the two that are odious; and therefore the ordinary concent of four parts consisteth of an eight, a fifth, and a third to the base; but that fifth is a fourth to the treble, and the third is a sixth. And the cause is, for that the base striking more air, doth overcome and drown the treble, unless the discord be very odious; and so hideth a small imperfection. For we see, that in one of the lower strings of a lute, there soundeth not the sound of the treble, nor any mixt sound, but only the sound of the base.

110. WE have no musick of quarter-notes; and it may be they are not capable of harmony; for we see the half-notes themselves do but interpose sometimes. Nevertheless we have some slides or reliques of the voice or strings, as it were continued without notes, from one tone to another, rising or falling, which are delightful.

111. THE causes of that which is pleasing or ingrate to the hearing, may receive light by that which is pleasing or ingrate to the sight. There be two things pleasing to the sight (leaving pictures and shapes aside, which are but secondary objects; and please or displease but in memory) these two are colours and order. The pleasing of colour symbolizeth with the pleasing of any single tone to the ear; but the pleasing of order doth symbolize with harmony. And therefore we see in garden-knots, and the frets of houses, and all equal and well answering figures, (as globes, pyramids, cones, cylinders, *etc.*) how they please; whereas unequal figures are but deformities. And both these pleasures, that of the eye, and that of the ear, are but the effects of equality, good proportion, or correspondence: so that (out of question) equality, and correspondence, are the causes of harmony. But to find the proportion of that correspondence, is more abstruse; whereof notwithstanding we shall speak somewhat (when we handle tones) in the general enquiry of sounds.

112. TONES are not so apt altogether to procure sleep, as some other sounds; as the wind, the purling of water, humming of bees, a sweet voice of one that readeth, *etc.* The cause whereof is, for that tones, because they are equal and slide not, do more strike and erect the sense than the other. And overmuch attention hindereth sleep.



113. THERE be in musick certain figures or tropes, almost agreeing with the figures of rhetoric, and with the affections of the mind, and other senses. First, the division and quavering, which please so much in musick, have an agreement with the glittering of light; as the moon-beams playing upon a wave. Again, the falling from a discord to a concord, which maketh great sweetness in musick, hath an agreement with the affections, which are reintegrated to the better, after some dislikes: it agreeth also with the taste, which is soon glutted with that which is sweet alone. The sliding from the close or cadence, hath an agreement with the figure in rhetoric, which they call *praeter expectatum*; for there is a pleasure even in being deceived. The reports, and fuges, have an agreement with the figures in rhetoric, of repetition and traduction. The tripla's, and changing of times, have an agreement with the changes of motions; as when galliard time, and measure time, are in the medley of one dance.

114. IT hath been anciently held and observed, that the sense of hearing, and the kinds of musick, have most operation upon manners; as, to encourage men, and make them warlike; to make them soft and effeminate; to make them grave; to make them light; to make them gentle and inclin'd to pity, *etc.* The cause is, for that the sense of hearing striketh the spirits more immediately, than the other senses; and more incorporeally than the smelling: for the sight, taste, and feeling, have their organs not of so present and immediate access to the spirits, as the hearing hath. And as for the smelling (which indeed worketh also immediately upon the spirits, and is forcible while the object remaineth) it is with a communication of the breath, or vapour of the object odorate; but harmony entering easily, and mingling not at all, and coming with a manifest motion, both by custom of often affecting the spirits, and putting them into one kind of posture, alter not a little the nature of the spirits, even when the object is removed. And therefore we see, that tunes and airs, even in their own nature, have in themselves some affinity with the affections; as there be merry tunes, doleful tunes, solemn tunes; tunes inclining mens minds to pity; warlike tunes, *etc.* So as it is no marvel if they alter the spirits, considering that tunes have a predisposition to the motion of the spirits in themselves. But yet it hath been noted, that, though this variety of tunes doth dispose the spirits to variety of passions, conform unto them, yet generally musick feedeth that disposition of the spirits which it findeth. We see also, that several airs, and tunes, do please several nations and persons, according to the sympathy they have with their spirits.

*Experiments in consort touching sounds; and first touching the nullity and entity of sounds.*

PERSPECTIVE hath been with some diligence enquired; and so hath the nature of sounds, in some sort, as far as concerneth musick: but the nature of sounds in general hath been superficially observed. It is one of the subtlest pieces of nature. And besides, I practise, as I do advise; which is, after long inquiry of things immerse in matter, to interpose some subject which is immaterial, or less material; such as this of sounds; to the end, that the intellect may be rectified, and become not partial.

115. IT is first to be considered, what great motions there are in nature, which pass without sound or noise. The heavens turn about in a most rapid motion, without noise to us perceived; though in some dreams they have been said to make an excellent musick. So the motions of the comets, and fiery meteors (as *stella cadens, etc.*) yield no noise. And if it be thought, that it is the greatness of distance from us, whereby the sound cannot be heard; we see that lightnings and coruscations, which are near at hand, yield no sound neither: and yet in all these, there is a percussion and division of the air. The winds in the upper region (which move the clouds above, which we call the rack, and are not perceived below) pass without noise. The lower winds in a plain, except they be strong, make no noise; but amongst trees, the noise of such winds will be perceived. And the winds (generally) when they make a noise, do ever make it unequally, rising and falling, and sometimes (when they are vehement) trembling at the height of their blast. Rain or hail falling (though vehemently)



vehemently) yieldeth no noise in passing through the air, till it fall upon the ground, water, houses, or the like. Water in a river (though a swift stream) is not heard in the channel, but runneth in silence, if it be of any depth; but the very stream upon shallows, of gravel, or pebble, will be heard. And waters, when they beat upon the shore, or are straitned (as in the falls of bridges) or are dashed against themselves, by winds, give a roaring noise. Any piece of timber, or hard body, being thrust forwards by another body contiguous, without knocking, giveth no noise. And so bodies in weighing one upon another, though the upper body press the lower body down, make no noise. So the motion in the minute parts of any solid body (which is the principal cause of violent motion, though unobserved) passeth without sound; for that sound that is heard sometimes, is produced only by the breaking of the air; and not by the impulsion of the parts. So it is manifest, that where the anterior body giveth way, as fast as the posterior cometh on, it maketh no noise, be the motion never so great or swift.

116. AIR open, and at large, maketh no noise, except it be sharply percussed; as in the sound of a string, where air is percussed by a hard and stiff body, and with a sharp loose: for if the string be not straitned, it maketh no noise. But where the air is pent and straitned, there breath or other blowing (which carry but a gentle percussion) suffice to create sound; as in pipes and wind-instruments. But then you must note, that in recorders, which go with a gentle breath, the concave of the pipe, were it not for the fipple that straitneth the air (much more than the simple concave) would yield no sound. For as for other wind-instruments, they require a forcible breath; as trumpets, cornets, hunters-horns, *etc.* which appeareth by the blown cheeks of him that windeth them. Organs also are blown with a strong wind by the bellows. And note again, that some kind of wind-instruments are blown at a small hole in the side, which straitneth the breath at the first entrance; the rather, in respect of their traverse and stop above the hole, which performeth the fipples part; as it is seen in flutes and fifes, which will not give sound by a blast at the end, as recorders, *etc.* do. Likewise in all whistling, you contract the mouth; and to make it more sharp, men sometimes use their finger. But in open air, if you throw a stone or a dart, they give no sound: no more do bullets, except they happen to be a little hollowed in the casting; which hollownes penneth the air: nor yet arrows, except they be rustled in their feathers, which likewise penneth the air. As for small whistles or shepherds oaten pipes, they give a sound because of their extreme slenderness, whereby the air is more pent, than in a wider pipe. Again, the voices of men and living creatures pass through the throat, which penneth the breath. As for the Jews-harp, it is a sharp percussion; and, besides, hath the advantage of penning the air in the mouth.

117. SOLID bodies, if they be very softly percussed, give no sound; as when a man treadeth very softly upon boards. So chests or doors in fair weather, when they open easily, give no sound. And cart-wheels squeak not when they are liquored.

118. THE flame of tapers or candles, though it be a swift motion and breaketh the air, yet passeth without sound. Air in ovens, though (no doubt) it doth (as it were) boil and dilate itself, and is repercussed; yet it is without noise.

119. FLAME percussed by air, giveth a noise; as in blowing of the fire by bellows; greater, than if the bellows should blow upon the air itself. And so likewise flame percussing the air strongly (as when flame suddenly taketh and openeth) giveth a noise; so great flames, while the one impelleth the other, give a bellowing sound.

120. THERE is a conceit runneth abroad, that there should be a white powder, which will discharge a piece without noise; which is a dangerous experiment if it should be true: for it may cause secret murders. But it seemeth to me impossible; for, if the air pent be driven forth and strike the air open, it will certainly make a noise. As for the white powder (if any such thing be, that may extinguish or dead the noise) it is like to be a mixture of petre and sulphur, without coal. For petre alone will not take fire. And if any man think,



that the sound may be extinguished or deadened, by discharging the pent air, before it cometh to the mouth of the piece and to the open air; that is not probable; for it will make more divided sounds: as if you should make a cross barrel hollow, through the barrel of a piece, it may be it would give several sounds, both at the nose and at the sides. But I conceive, that if it were possible to bring to pass, that there should be no air pent at the mouth of the piece, the bullet might fly with small or no noise. For first it is certain, there is no noise in the percussion of the flame upon the bullet. Next the bullet, in piercing through the air, maketh no noise; as hath been said. And then, if there be no pent air that striketh upon open air, there is no cause of noise; and yet the flying of the bullet will not be stayed. For that motion (as hath been oft said) is in the parts of the bullet, and not in the air. So as trial must be made by taking some small concave of metal, no more than you mean to fill with powder, and laying the bullet in the mouth of it, half out into the open air.

121. I HEARD it affirmed by a man, that was a great dealer in secrets, but he was but vain; that there was a conspiracy (which himself hindered) to have killed queen Mary, sister to queen Elizabeth, by a burning glass, when she walked in Saint James's park, from the leads of the house. But thus much (no doubt) is true; that if burning glasses could be brought to a great strength (as they talk generally of burning glasses that are able to burn a navy) the percussion of the air alone, by such a burning glass, would make no noise; no more than is found in coruscations and lightnings without thunders.

122. I suppose, that impression of the air with sounds asketh a time to be conveyed to the sense, as well as the impressing of species visible; or else they will not be heard. And therefore, as the bullet moveth so swift, that it is invisible; so the same swiftness of motion maketh it inaudible: for we see, that the apprehension of the eye is quicker than that of the ear.

123. ALL eruptions of air, though small and slight, give an entry of sound, which we call crackling, puffing, spitting, *etc.* as in bay-salt, and bay-leaves, cast into the fire; so in chestnuts, when they leap forth of the ashes; so in green wood laid upon the fire, especially roots; so in candles, that spit flame if they be wet; so in rasping, sneezing, *etc.* so in a rose leaf gathered together into the fashion of a purse, and broken upon the forehead, or back of the hand, as children use.

*Experiments in consort touching production, conservation, and delation of sounds; and the office of the air therein.*

124. THE cause given of sound, that it should be an elision of the air (whereby, if they mean any thing, they mean a cutting or dividing, or else an attenuating of the air) is but a term of ignorance; and the notion is but a catch of the wit upon a few instances; as the manner is in the philosophy received. And it is common with men, that if they have gotten a pretty expression, by a word of art, that expression goeth current; though it be empty of matter. This conceit of elision appeareth most manifestly to be false, in that the sound of a bell, string, or the like, continueth melting some time after the percussion; but ceaseth straightways, if the bell, or string, be touched and stayed: whereas, if it were the elision of the air that made the sound, it could not be that the touch of the bell or string should extinguish so suddenly that motion caused by the elision of the air. This appeareth yet more manifestly by chiming with a hammer upon the outside of a bell; for the sound will be according to the inward concave of the bell; whereas the elision or attenuation of the air cannot be but only between the hammer and the outside of the bell. So again, if it were an elision, a broad hammer, and a bodkin, struck upon metal, would give a diverse tone, as well as a diverse loudness: but they do not so; for though the sound of the one be louder, and of the other softer, yet the tone is the same. Besides, in echoes (whereof some are as loud as the original voice) there is no new elision, but a repercussion only. But that which convinceth it most of all is, that sounds are generated where there is no air at all. But these and the like conceits, when men have cleared their understanding by the light of experience, will scatter and break up like a mist.



125. It is certain, that sound is not produced at the first, but with some local motion of the air, or flame, or some other medium; nor yet without some resistance, either in the air or the body percussed. For if there be a mere yielding or cession, it produceth no sound; as hath been said. And therein sounds differ from light and colours, which pass through the air, or other bodies, without any local motion of the air; either at the first, or after. But you must attentively distinguish between the local motion of the air (which is but *vehiculum causæ*, a carrier of the sounds) and the sounds themselves, conveyed in the air. For as to the former, we see manifestly, that no sound is produced (no not by air itself against other air, as in organs, *etc.*) but with a perceptible blast of the air; and with some resistance of the air stricken. For even all speech (which is one of the gentlest motions of air) is with expulsion of a little breath. And all pipes have a blast, as well as a sound. We see also manifestly, that sounds are carried with wind: and therefore sounds will be heard further with the wind, than against the wind; and likewise do rise and fall with the intensification or remission of the wind. But for the impression of the sound, it is quite another thing; and is utterly without any local motion of the air, perceptible; and in that resembleth the species visible: for after a man hath lured, or a bell is rung, we cannot discern any perceptible motion (at all) in the air along as the sound goeth; but only at the first. Neither doth the wind (as far as it carrieth a voice) with the motion thereof, confound any of the delicate and articulate figurations of the air, in variety of words. And if a man speak a good loudness against the flame of a candle, it will not make it tremble much; though most when those letters are pronounced which contract the mouth; as *F*, *S*, *V*, and some others. But gentle breathing, or blowing without speaking, will move the candle far more. And it is the more probable, that sound is without any local motion of the air, because as it differeth from the sight, in that it needeth a local motion of the air at first; so it paralleleth in so many other things with the sight, and radiation of things visible; which (without all question) induce no local motion in the air, as hath been said.

126. NEVERTHELESS it is true, that upon the noise of thunder, and great ordnance, glass windows will shake; and fishes are thought to be frayed with the motion caused by noise upon the water. But these effects are from the local motion of the air, which is a concomitant of the sound (as hath been said) and not from the sound.

127. It hath been anciently reported, and is still received, that extreme applause and shouting of people assembled in great multitudes, have so rarified and broken the air, that birds flying over have fallen down, the air being not able to support them. And it is believed by some, that great ringing of bells in populous cities hath chased away thunder; and also dissipated pestilent air: all which may be also from the concussion of the air, and not from the sound.

128. A VERY great sound, near hand, hath stricken many deaf; and at the instant they have found, as it were, the breaking of a skin or parchment in their ear: and myself standing near one that lured loud and shrill, had suddenly an offence, as if somewhat had broken, or been dislocated in my ear; and immediately after a loud ringing (not an ordinary singing or hissing, but far louder and differing) so as I feared some deafness. But after some half quarter of an hour it vanished. This effect may be truly referred unto the sound: for (as is commonly received) an over-potent object doth destroy the sense; and spiritual species (both visible and audible) will work upon the sensories, though they move not any other body.

129. In delation of sounds, the enclosure of them preserveth them, and causeth them to be heard further. And we find in rolls of parchment or trunks, the mouth being laid to the one end of the roll of parchment or trunk, and the ear to the other, the sound is heard much farther than in the open air. The cause is, for that the sound spendeth, and is dissipated in the open air; but in such concaves it is conserved and contracted. So also in a piece of ordnance, if you speak in the touch-hole, and another lay his ear to the mouth of the piece, the sound passeth and is far better heard than in the open air.



130. It is further to be considered, how it proveth and worketh when the sound is not enclosed all the length of his way, but passeth partly through open air; as where you speak some distance from a trunk; or where the ear is some distance from the trunk at the other end; or where both mouth and ear are distant from the trunk. And it is tried, that in a long trunk of some eight or ten foot, the sound is holpen, though both the mouth and the ear be a handfull or more from the ends of the trunk; and somewhat more holpen, when the ear of the hearer is near, than when the mouth of the speaker. And it is certain, that the voice is better heard in a chamber from abroad, than abroad from within the chamber.

131. As the enclosure that is round about and entire, preserveth the sound; so doth a semi-concave, though in a less degree. And therefore, if you divide a trunk, or a cane into two, and one speak at the one end, and you lay your ear at the other, it will carry the voice further, than in the air at large. Nay further, if it be not a full semi-concave, but if you do the like upon the mast of a ship, or a long pole, or a piece of ordnance (though one speak upon the surface of the ordnance, and not at any of the bores) the voice will be heard farther than in the air at large.

132. It would be tried, how, and with what proportion of disadvantage the voice will be carried in an horn, which is a line arched; or in a trumpet, which is a line retorted; or in some pipe that were sinuous.

133. It is certain (howsoever it cross the received opinion) that sounds may be created without air, though air be the most favourable deferent of sounds. Take a vessel of water, and knap a pair of tongs some depth within the water, and you shall hear the sound of the tongs well, and not much diminished; and yet there is no air at all present.

134. TAKE one vessel of silver, and another of wood, and fill each of them full of water, and then knap the tongs together, as before, about an handful from the bottom, and you shall find the sound much more resounding from the vessel of silver, than from that of wood: and yet if there be no water in the vessel, so that you knap the tongs in the air, you shall find no difference between the silver and the wooden vessel. Whereby, beside the main point of creating sound without air, you may collect two things: the one, that the sound communicateth with the bottom of the vessel; the other, that such a communication passeth far better through water than air.

135. STRIKE any hard bodies together, in the midst of a flame; and you shall hear the sound with little difference from the sound in the air.

136. THE pneumatical part which is in all tangible bodies, and hath some affinity with the air, performeth, in some degree, the parts of the air; as when you knock upon an empty barrel, the sound is (in part) created by the air on the outside; and (in part) by the air in the inside: for the sound will be greater or lesser, as the barrel is more empty or more full; but yet the sound participateth also with the spirit in the wood, through which it passeth, from the outside to the inside: and so it cometh to pass in the chiming of bells on the outside; where also the sound passeth to the inside: and a number of other like instances, whereof we shall speak more when we handle the communication of sounds.

137. IT were extreme grossness to think (as we have partly touched before) that the sound in strings is made or produced between the hand and the string, or the quill and the string, or the bow and the string, for those are but *vehicula motus*, passages to the creation of the sound, the sound being produced between the string and the air; and that not by any impulsion of the air from the first motion of the string; but by the return or result of the string, which was strained by the touch, to his former place: which motion of result is quick and sharp; whereas the first motion is soft and dull. So the bow tortureth the string continually, and thereby holdeth it in a continual trepidation.

*Experiments in consort touching the magnitude and exility and damps of sounds.*

138. TAKE a trunk, and let one whistle at the one end, and hold your ear at



at the other, and you shall find the sound strike so sharp, as you can scarce endure it. The cause is, for that sound diffuseth itself in round, and so spendeth itself; but if the sound, which would scatter in open air, be made to go all into a canal, it must needs give greater force to the sound. And so you may note, that enclosures do not only preserve sound, but also increase and sharpen it.

139. A HUNTER's horn being greater at one end than at the other, doth increase the sound more, than if the horn were all of an equal bore. The cause is, for that the air and sound being first contracted at the lesser end, and afterwards having more room to spread at the greater end, do dilate themselves; and in coming out strike more air; whereby the sound is the greater and baser. And even hunters horns, which are sometimes made straight, and not oblique, are ever greater at the lower end. It would be tried also in pipes, being made far larger at the lower end; or being made with a belly towards the lower end, and then issuing into a straight concave again.

140. THERE is in Saint James's fields a conduit of brick, unto which joineth a low vault; and at the end of that a round house of stone: and in the brick conduit there is a window; and in the round house a slit or rift of some little breadth: if you cry out in the rift, it will make a fearful roaring at the window. The cause is the same with the former; for that all concaves, that proceed from more narrow to more broad, do amplify the sound at the coming out.

141. HAWKS bells, that have holes in the sides, give a greater ring, than if the pellet did strike upon brass in the open air. The cause is the same with the first instance of the trunk; namely, for that the sound inclosed with the sides of the bell cometh forth at the holes unpent and more strong.

142. IN drums, the closeness round about, that preserveth the sound from dispersing, maketh the noise come forth at the drum-hole far more loud and strong, than if you should strike upon the like skin extended in the open air. The cause is the same with the two precedent.

143. SOUNDS are better heard, and farther off, in an evening or in the night, than at the noon or in the day. The cause is, for that in the day, when the air is more thin (no doubt) the sound pierceth better; but when the air is more thick (as in the night) the sound spendeth and spreadeth abroad less: and so it is a degree of enclosure. As for the night, it is true also that the general silence helpeth.

144. THERE be two kinds of reflexions of sounds; the one at distance, which is the echo; wherein the original is heard distinctly, and the reflexion also distinctly; of which we shall speak hereafter: the other in concurrence; when the sound reflecting (the reflexion being near at hand) returneth immediately upon the original, and so iterateth it not, but amplifieth it. Therefore we see, that musick upon the water soundeth more; and so likewise musick is better in chambers wainscotted than hanged.

145. THE strings of a lute, or viol, or virginals, do give a far greater sound, by reason of the knot, and board, and concave underneath, than if there were nothing but only the flat of a board, without that hollow and knot, to let in the upper air into the lower. The cause is the communication of the upper air with the lower, and penning of both from expence or dispersing.

146. AN Irish harp hath open air on both sides of the strings: and it hath the concave or belly not along the strings, but at the end of the strings. It maketh a more resounding sound than a bandora, orpharion, or cittern, which have likewise wire-strings. I judge the cause to be, for that open air on both sides helpeth, so that there be a concave; which is therefore best placed at the end.

147. IN a virginal, when the lid is down, it maketh a more exile sound, than when the lid is open. The cause is, for that all shutting in of air, where there is no competent vent, dampeth the sound: which maintaineth likewise the former instance; for the belly of the lute or viol doth pen the air somewhat.

148. THERE is a church at Cloucester (and, as I have heard, the like is in some other places) where if you speak against a wall softly, another shall hear your

Vol. I.

P p

voice



voice better a good way off, than near at hand. Enquire more particularly of the frame of that place. I suppose there is some vault, or hollow, or ille, behind the wall, and some passage to it towards the farther end of that wall against which you speak; so as the voice of him that speaketh slideth along the wall, and then entreth at some passage, and communicateth with the air of the hollow; for it is preserved somewhat by the plain wall; but that is too weak to give a sound audible, till it hath communicated with the back air.

149. STRIKE upon a bow-string, and lay the horn of the bow near your ear, and it will increase the sound, and make a degree of a tone. The cause is, for that the sensory, by reason of the close holding, is percussed before the air disteth. The like is, if you hold the horn betwixt your teeth: but that is a plain delation of the sound, from the teeth to the instrument of hearing; for there is a great intercourse between those two parts; as appeareth by this, that a harsh grating tune setteth the teeth on edge. The like falleth out, if the horn of the bow be put upon the temples; but that is but the slide of the sound from thence to the ear.

150. If you take a rod of iron or brass, and hold the one end to your ear, and strike upon the other, it maketh a far greater sound than the like stroke upon the rod, made not so contiguous to the ear. By which, and by some other instances that have been partly touched, it should appear, that sounds do not only slide upon the surface of a smooth body, but do also communicate with the spirits, that are in the pores of the body.

151. I REMEMBER in Trinity College in Cambridge, there was an upper chamber, which being thought weak in the roof of it, was supported by a pillar of iron of the bigness of one's arm in the midst of the chamber; which if you had struck, it would make a little flat noise in the room where it was struck, but it would make a great bomb in the chamber beneath.

152. THE sound which is made by buckets in a well, when they touch upon the water, or when they strike upon the side of the well, or when two buckets dash the one against the other, these sounds are deeper and fuller than if the like percussion were made in the open air. The cause is the penning and enclosure of the air in the concave of the well.

153. BARRELS placed in a room under the floor of a chamber, make all noises in the same chamber more full and resounding.

So that there be five ways (in general) of majoration of sounds: enclosure simple; enclosure with dilatation; communication; reflexion concurrent; and approach to the sensory.

154. For exility of the voice or other sounds; it is certain that the voice doth pass through solid and hard bodies if they be not too thick: and through water, which is likewise a very close body, and such an one as letteth not in air. But then the voice, or other sound, is reduced by such passage to a great weakness or exility. If therefore you stop the holes of a hawk's bell, it will make no ring, but a flat noise or rattle. And so doth the *attiles* or eagle-stone, which hath a little stone within it.

155. AND as for water, it is a certain trial: let a man go into a bath, and take a pail, and turn the bottom upward, and carry the mouth of it (even) down to the level of the water, and so press it down under the water some handful and an half, still keeping it even, that it may not tilt on either side, and so the air get out: then let him that is in the bath dive with his head so far under water, as he may put his head into the pail, and there will come as much air bubbling forth, as will make room for his head. Then let him speak, and any that shall stand without shall hear his voice plainly; but yet made extreme sharp and exile, like the voice of puppets: but yet the articulate sounds of the words will not be confounded. Note, that it may be much more handsomely done, if the pail be put over the man's head above water, and then he cower down, and the pail be pressed down with him. Note, that a man must kneel or sit, that he may be lower than the water. A man would think that the Sicilian poet had knowledge of this experiment; for he saith, that Hercules's page Hylas went with a water-pot to fill it at a pleasant fountain that was near the shore, and that the nymphs of the fountain



fountain fell in love with the boy, and pulled him under water, keeping him alive; and that Hercules missing his page, called him by his name aloud, that all the shore rang of it; and that Hylas from within the water answered his master, but (that which is to the present purpose) with so small and exile a voice, as Hercules thought he had been three miles off, when the fountain (indeed) was fast by.

156. In lutes and instruments of strings, if you stop a string high (whereby it hath less scope to tremble) the sound is more treble, but yet more dead.

157. TAKE two saucers, and strike the edge of the one against the bottom of the other, within a pail of water; and you shall find, that as you put the saucers lower and lower, the sound groweth more flat; even while part of the saucer is above the water; but that flatness of sound is joined with a harshness of sound; which no doubt is caused by the inequality of the sound which cometh from the part of the saucer under the water, and from the part above. But when the saucer is wholly under the water the sound becometh more clear, but far more low, and as if the sound came from afar off.

158. A soft body dampeth the sound much more than a hard; as if a bell hath cloth or silk wrapped about it, it deadeth the sound more than if it were wood. And therefore in clericals the keys are lined; and in colleges they use to line the tablemen.

159. TRIAL was made in a recorder after these several manners. The bottom of it was set against the palm of the hand; stopped with wax round about; set against a damask cushion; thrust into sand; into ashes; into water (half an inch under the water;) close to the bottom of a silver basin; and still the tone remained: but the bottom of it was set against a woollen carpet; a lining of plush; a lock of wool (though loosely put in;) against snow; and the sound of it was quite deaded, and but breath.

160. Iron hot produceth not so full a sound as when it is cold; for while it is hot, it appeareth to be more soft and less resounding. So likewise warm water, when it falleth, maketh not so full a sound as cold: and I conceive it is softer, and nearer the nature of oil; for it is more slippery, as may be perceived in that it scowreth better.

161. LET there be a recorder made with two pipes, at each end one; the trunk of it of the length of two recorders, and the holes answerable towards each end; and let two play the same lesson upon it at an union; and let it be noted whether the sound be confounded, or amplified, or dulled. So likewise let a cross be made of two trunks (throughout) hollow; and let two speak, or sing, the one long ways, the other traverse: and let two hear at the opposite ends; and note, whether the sound be confounded, amplified, or dulled. Which two instances will also give light to the mixture of sounds, whereof we shall speak hereafter.

162. A BELLOWs blown in at the hole of a drum, and the drum then stricken, maketh the sound a little flatter, but no other apparent alteration. The cause is manifest; partly for that it hindereth the issue of the sound; and partly for that it maketh the air, being blown together, less moveable.

*Experiments in consort touching the loudness or softness of sounds, and their carriage at longer or shorter distance.*

163. THE loudness and softness of sounds is a thing distinct from the magnitude and exility of sounds; for a base string, though softly stricken, giveth the greater sound; but a treble string, if hard stricken, will be heard much farther off. And the cause is, for that the base string striketh more air, and the treble less air, but with a sharper percussion.

164. IT is therefore the strength of the percussion, that is a principal cause of the loudness or softness of sounds; as in knocking harder or softer; winding of a horn stronger or weaker; ringing of a hand-bell harder or softer, *etc.* And the strength of this percussion consisteth as much or more in the hardness of the body percussed, as in the force of the body percussing: for if you strike against a cloth, it will give a less sound; if against wood, a greater; if against metal, yet a greater; and



and in metals, if you strike against gold (which is the more pliant) it giveth the flatter sound; if against silver or brass, the more ringing sound. As for air, where it is strongly pent, it matcheth a hard body. And therefore we see in discharging of a piece, what a great noise it maketh. We see also, that the charge with bullet, or with paper wet and hard stopped, or with powder alone rammed in hard, maketh no great difference in the loudness of the report.

165. THE sharpness or quickness of the percussion, is a great cause of the loudness, as well as the strength; as in a whip or wand, if you strike the air with it; the sharper and quicker you strike it, the louder sound it giveth. And in playing upon the lute or virginals, the quick stroke or touch is a great life to the sound. The cause is, for that the quick striking cutteth the air speedily; whereas the soft striking doth rather beat than cut.

*Experiments in consort touching the communication of sounds.*

THE communication of sounds (as in bellies of lutes, empty vessels, &c.) hath been touched *obiter* in the majoration of sounds; but it is fit also to make a title of it apart.

166. THE experiment for greatest demonstration of communication of sounds, is the chiming of bells; where if you strike with a hammer upon the upper part, and then upon the midd, and then upon the lower, you shall find the sound to be more treble and more base, according unto the concave, on the inside, though the percussion be only on the outside.

167. WHEN the sound is created between the blast of the mouth and the air of the pipe, it hath nevertheless some communication with the matter of the sides of the pipe, and the spirits in them contained; for in a pipe, or trumpet, of wood, and brass, the sound will be divers; so if the pipe be covered with cloth or silk, it will give a divers sound from that it would do of itself; so if the pipe be a little wet on the inside, it will make a differing sound from the same pipe dry.

168. THAT sound made within water doth communicate better with a hard body through water, than made in air it doth with air, *vide experimentum* 134.

*Experiments in consort touching equality and inequality of sounds.*

WE have spoken before (in the inquisition touching musick) of musical sounds, whereunto there may be a concord or discord in two parts; which sounds we call tones; and likewise of immusical sounds; and have given the cause, that the tone proceedeth of equality, and the other of inequality. And we have also expressed there, what are the equal bodies that give tones, and what are the unequal that give none. But now we shall speak of such inequality of sounds, as proceedeth not from the nature of the bodies themselves, but is accidental; either from the roughness or obliquity of the passage, or from the doubling of the percipient, or from the trepidation of the motion.

169. A BELL, if it have a rift in it, whereby the sound hath not a clear passage, giveth a hoarse and jarring sound; so the voice of man, when by cold taken the weasand groweth rugged, and (as we call it) furred, becometh hoarse. And in these two instances the sounds are ingrate, because they are merely unequal: but if they be unequal in equality, then the sound is grateful, but purling.

170. ALL instruments that have either returns, as trumpets; or flexions, as cornets; or are drawn up, and put from, as sackbuts; have a purling sound: but the recorder, or flute, that have none of these inequalities, give a clear sound. Nevertheless, the recorder itself, or pipe, moistened a little in the inside, soundeth more solemnly, and with a little purling or hissing. Again, a wreathed string, such as are in the base strings of bandora's, giveth also a purling sound.

171. BUT a lute-string, if it be merely unequal in its parts, giveth a harsh and untuneable sound; which strings we call false, being bigger in one place than in another; and therefore wire-strings are never false. We see also, that when we try a false lute-string, we use to extend it hard between the fingers, and to philip it; and if it giveth a double species, it is true; but if it giveth a treble, or more, it is false.



172. WATERS, in the noise they make as they run, represent to the ear a trembling noise; and in regals (where they have a pipe they call the nightingale-pipe, which containeth water) the sound hath a continual trembling; and children have also little things they call cocks, which have water in them; and when they blow or whistle in them, they yield a trembling noise; which trembling of water hath an affinity with the letter L. All which inequalities of trepidation are rather pleasant than otherwise.

173. ALL base notes, or very treble notes, give an asper sound; for that the base striketh more air, than it can well strike equally: and the treble cutteth the air so sharp, as it returneth too swift to make the sound equal: and therefore a mean or tenor is the sweetest part.

174. WE know nothing that can at pleasure make a musical or immusical sound by voluntary motion, but the voice of man and birds. The cause is (no doubt) in the windand or wind-pipe (which we call *aspera arteria*) which being well extended, gathereth equality; as a bladder that is wrinkled, if it be extended, becometh smooth. The extension is always more in tones than in speech: therefore the inward voice or whisper can never give a tone. And in singing, there is (manifestly) a greater working and labour of the throat, than in speaking; as appeareth in the thrusting out or drawing in of the chin, when we sing.

175. THE humming of bees is an unequal buzzing, and is conceived by some of the ancients not to come forth at their mouth, but to be an inward sound; but (it may be) it is neither; but from the motion of their wings; for it is not heard but when they stir.

176. ALL metals quenched in water give a sibilation or hissing sound (which hath an affinity with the letter Z) notwithstanding the sound be created between the water or vapour, and the air. Seething also, if there be but small store of water in a vessel, giveth a hissing sound; but boiling in a full vessel giveth a bubbling sound, drawing somewhat near to the cocks used by children.

177. TRIAL would be made, whether the inequality or interchange of the medium will not produce an inequality of sound; as if three bells were made one within another, and air betwixt each; and then the outermost bell were chimed with a hammer, how the sound would differ from a simple bell. So likewise take a plate of brass, and a plank of wood, and join them close together, and knock upon one of them, and see if they do not give an unequal sound. So make two or three partitions of wood in a hoghead, with holes or knots in them; and mark the difference of their sound from the sound of an hoghead without such partitions.

*Experiments in consort touching the more treble, and the more base tones, or musical sounds.*

178. IT is evident, that the percussion of the greater quantity of air causeth the baser sound; and the less quantity the more treble sound. The percussion of the greater quantity of air is produced by the greatness of the body percussing; by the latitude of the concave by which the sound passeth; and by the longitude of the same concave. Therefore we see that a base string is greater than a treble; a base pipe hath a greater bore than a treble; and in pipes, and the like, the lower the note-holes be, and the further off from the mouth of the pipe, the more base sound they yield; and the nearer the mouth, the more treble. Nay more, if you strike an entire body, as an andiron of brass, at the top, it maketh a more treble sound; and at the bottom a baser.

179. IT is also evident, that the sharper or quicker percussion of air causeth the more treble sound; and the slower or heavier, the more base sound. So we see in strings; the more they are wound up and strained (and thereby give a more quick start-back) the more treble is the sound; and the slacker they are, or less wound up, the baser is the sound. And therefore a bigger string more strained, and a lesser string less strained, may fall into the same tone.

180. CHILDREN, women, eunuchs have more small and shrill voices, than men. The reason is, not for that men have greater heat, which may make the voice stronger (for the strength of a voice or sound doth make a difference in the loudness



ness or softness, but not in the tone) but from the dilatation of the organ; which (it is true) is likewise caused by heat. But the cause of changing the voice at the years of puberty, is more obscure. It seemeth to be, for that when much of the moisture of the body, which did before irrigate the parts, is drawn down to the spermatical vessels, it leaveth the body more hot than it was; whence cometh the dilatation of the pipes: for we see plainly all effects of heat do then come on; as pilosity, more roughness of the skin, hardness of the flesh, *etc.*

181. THE industry of the musician hath produced two other means of straining or intension of strings, besides their winding up. The one is the stopping of the string with the finger; as in the necks of lutes, viols, *etc.* The other is the shortness of the string, as in harps, virginals, *etc.* Both these have one and the same reason; for they cause the string to give a quicker start.

182. IN the straining of a string, the further it is strained, the less superstraining goeth to a note; for it requireth good winding of a string before it will make any note at all: and in the stops of lutes, *etc.* the higher they go, the less distance is between the frets.

183. IF you fill a drinking-glass with water (especially one sharp below, and wide above) and fillip upon the brim or outside; and after empty part of the water, and so more and more, and still try the tone by fillipping; you shall find the tone fall and be more base, as the glass is more empty.

*Experiments in consort touching the proportion of treble and base tones.*

THE just and measured proportion of the air percussed, towards the baseness or trebleness of tones, is one of the greatest secrets in the contemplation of sounds. For it discovereth the true coincidence of tones into diapasons; which is the return of the same sound. And so of the concords and discords between the unison and diapason, which we have touched before in the experiments of musick; but think fit to resume it here as a principal part of our enquiry touching the nature of sounds. It may be found out in the proportion of the winding of strings; in the proportion of the distance of frets; and in the proportion of the concave of pipes, *etc.* but most commodiously in the last of these.

184. TRY therefore the winding of a string once about, as soon as it is brought to that extension as will give a tone; and then of twice about, and thrice about, *etc.* and mark the scale or difference of the rise of the tone: whereby you shall discover, in one, two effects; both the proportion of the sound towards the dimension of the winding; and the proportion likewise of the sound towards the string, as it is more or less strained. But note that to measure this, the way will be, to take the length in a right line of the string, upon any winding about of the peg.

185. AS for the stops, you are to take the number of frets; and principally the length of the line, from the first stop of the string, unto such a stop as shall produce a diapason to the former stop upon the same string.

186. BUT it will best (as it is said) appear in the bores of wind-instruments: and therefore cause some half dozen pipes to be made, in length and all things else alike, with a single, double, and so on to a sextuple bore; and so mark what fall of tone every one giveth. But still in these three last instances, you must diligently observe, what length of string, or distance of stop, or concave of air, maketh what rise of sound. As in the last of these (which, as we said, is that which giveth the aptest demonstration) you must set down what increase of concave goeth to the making of a note higher; and what of two notes; and what of three notes; and so up to the diapason: for then the great secret of numbers and proportions will appear. It is not unlike that those that make recorders, *etc.* know this already: for that they make them in sets; and likewise bell-founders, in fitting the tune of their bells. So that enquiry may save trial. Surely it hath been observed by one of the ancients, that an empty barrel knocked upon with the finger, giveth a diapason to the sound of the like barrel full; but how that should be I do not well understand; for that the knocking of a barrel full or empty, doth scarce give any tone.

187. THERE is required some sensible difference in the proportion of creating a note,



note, towards the sound itself, which is the passive: and that it be not too near, but at a distance. For in a recorder, the three uppermost holes yield one tone; which is a note lower than the tone of the first three. And the like (no doubt) is required in the winding or stopping of strings.

*Experiments in consort touching exterior and interior sounds.*

THERE is another difference of sounds, which we will call exterior and interior. It is not soft nor loud: nor it is not base nor treble: nor it is not musical nor unmusical: though it be true, that there can be no tone in an interior sound; but on the other side, in an exterior sound there may be both musical and unmusical. We shall therefore enumerate them, rather than precisely distinguish them; though (to make some adumbration of that we mean) the interior is rather an impulsio or contusio of the air, than an elision or section of the same: so as the percussion of the one towards the other differeth as a blow differeth from a cut.

188. IN speech of man, the whispering (which they call *susurrus* in latin) whether it be louder or softer, is an interior sound; but the speaking out is an exterior sound; and therefore you can never make a tone, nor sing in whispering; but in speech you may: so breathing, or blowing by the mouth, bellows, or wind (though loud) is an interior sound; but the blowing through a pipe or concave (though soft) is an exterior. So likewise the greatest winds, if they have no coarctation, or blow not hollow, give an interior sound; the whistling or hollow wind yieldeth a singing, or exterior sound; the former being pent by some other body; the latter being pent in by its own density: and therefore we see, that when the wind bloweth hollow, it is a sign of rain. The flame, as it moveth within itself or is blown by a bellows, giveth a murmur or interior sound.

189. THERE is no hard body, but struck against another hard body, will yield an exterior sound greater or lesser: in so much as if the percussion be over-soft, it may induce a nullity of sound; but never an interior sound; as when one treadeth so softly that he is not heard.

190. WHERE the air is the percipient, pent or not pent, against a hard body, it never giveth an exterior sound; as if you blow strongly with a bellows against a wall.

191. SOUNDS (both exterior and interior) may be made as well by suction as by emission of the breath: as in whistling or breathing.

*Experiments in consort touching articulation of sounds.*

192. IT is evident, and it is one of the strangest secrets in sounds, that the whole sound is not in the whole air only; but the whole sound is also in every small part of the air. So that all the curious diversity of articulate sounds, of the voice of man or birds, will enter at a small cranny inconfused.

193. THE unequal agitation of the winds and the like, though they be material to the carriage of the sounds farther or less way; yet they do not confound the articulation of them at all, within that distance that they can be heard; though it may be, they make them to be heard less way than in a still; as hath been partly touched.

194. OVER-GREAT distance confoundeth the articulation of sounds; as we see, that you may hear the sound of a preacher's voice, or the like, when you cannot distinguish what he saith. And one articulate sound will confound another, as when many speak at once.

195. IN the experiment of speaking under water, when the voice is reduced to such an extreme exility, yet the articulate sounds (which are the words) are not confounded, as hath been said.

196. I CONCEIVE, that an extreme small, or an extreme great sound, cannot be articulate; but that the articulation requireth a mediocrity of sound: for that the extreme small sound confoundeth the articulation by contracting; and the great sound by dispersing: and although (as was formerly said) a sound articulate, already created, will be contracted into a small cranny; yet the first articulation requireth more dimension.



197. It hath been observed, that in a room, or in a chapel, vaulted below and vaulted likewise in the roof, a preacher cannot be heard so well, as in the like places not so vaulted. The cause is, for that the subsequent words come on before the precedent words vanish; and therefore the articulate sounds are more confused, though the gross of the sound be greater.

198. The motions of the tongue, lips, throat, palate, *etc.* which go to the making of the several alphabetical letters, are worthy enquiry, and pertinent to the present inquisition of sounds: but because they are subtle, and long to describe, we will refer them over, and place them amongst the experiments of speech. The Hebrews have been diligent in it, and have assigned which letters are labial, which dental, which guttural, *etc.* As for the Latins and Grecians, they have distinguished between semi-vowels and mutes; and in mutes, between *mutae tenues*, *mediae*, and *aspiratae*; not amiss, but yet not diligently enough. For the special strokes and motions that create those sounds, they have little enquired: as, that the letters B, P, F, M, are not expressed, but with the contracting or shutting of the mouth; that the letters N and B, cannot be pronounced but that the letter N will turn into M. As *becatonba* will be *becatomba*. That M and T cannot be pronounced together, but P will come between; as *emtus* is pronounced *emplus*; and a number of the like. So that if you enquire to the full, you will find, that to the making of the whole alphabet there will be fewer simple motions required, than there are letters.

199. The lungs are the most spongy part of the body; and therefore ablest to contract and dilate itself; and where it contracteth itself, it expelleth the air; which through the artery, throat, and mouth, maketh the voice: but yet articulation is not made but with the help of the tongue, palate, and the rest of those they call instruments of voice.

200. There is found a similitude between the sound that is made by inanimate bodies or by animate bodies, that have no voice articulate, and divers letters of articulate voices: and commonly men have given such names to those sounds, as do allude unto the articulate letters. As trembling of water hath resemblance with the letter L; quenching of hot metals with the letter Z; snarling of dogs with the letter R; the noise of screech-owls with the letter Sb; voice of cats with the diphthong Eu; voice of cuckows with the diphthong Ou; sounds of strings with the letter Ng: so that if a man (for curiosity or strangeness sake) would make a puppet or other dead body to pronounce a word, let him consider, on the one part, the motion of the instruments of voice; and on the other part, the like sounds made in inanimate bodies; and what conformity there is that causeth the similitude of sounds; and by that he may minister light to that effect.



## NATURAL HISTORY.

## CENTURY III.

*Experiments in consort touching the motions of sounds, in what lines they are circular, oblique, straight, upwards, downwards, forwards, backwards.*

201. **A**LL sounds whatsoever move round; that is to say, on all sides; upwards, downwards, forwards, and backwards. This appeareth in all instances.

202. SOUNDS do not require to be conveyed to the sense in a right line, as visibles do, but may be arched; though it be true, they move strongest in a right line; which nevertheless is not caused by the rightness of the line, but by the shortness of the distance; *linea recta brevissima*. And therefore we see if a wall be between, and you speak on the one side, you hear it on the other; which is not because the sound passeth through the wall, but archeth over the wall.

203. If the sound be stopped and repercussed, it cometh about on the other side in an oblique line. So, if in a coach one side of the boot be down, and the other up, and a beggar beg on the close side; you will think that he were on the open side. So likewise, if a bell or clock be (for example) on the north side of a chamber, and the window of that chamber be upon the south; he that is in the chamber will think the sound came from the south.

204. SOUNDS, though they spread round (so that there is an orb or spherical area of the sound) yet they move strongest, and go farthest in the fore-lines, from the first local impulsion of the air. And therefore in preaching, you shall hear the preacher's voice better before the pulpit, than behind it, or on the sides, though it stand open. So a harquebuz, or ordnance, will be farther heard forwards from the mouth of the piece, than backwards, or on the sides.

205. IT may be doubted, that sounds do move better downwards than upwards. Pulpits are placed high above the people. And when the ancient generals spake to their armies, they had ever a mount of turf cast up, whereupon they stood; but this may be imputed to the stops and obstacles which the voice meeteth with, when one speaketh upon the level. But there seemeth to be more in it; for it may be that spiritual species, both of things visible and sounds, do move better downwards than upwards. It is a strange thing, that to men standing below on the ground, those that be on the top of Paul's seem much less than they are, and cannot be known; but to men above, those below seem nothing so much lessened, and may be known: yet it is true, that all things to them above seem also somewhat contracted, and better collected into figure: as knots in gardens shew best from an upper window or terras.

206. BUT to make an exact trial of it, let a man stand in a chamber not much above the ground, and speak out at the window, through a trunk, to one standing on the ground, as softly as he can, the other laying his ear close to the trunk: then *via versa*, let the other speak below keeping the same proportion of softness; and let him in the chamber lay his ear to the trunk: and this may be the aptest means to make a judgment, whether sounds descend or ascend better.

*Experiments in consort touching the lasting and perishing of sounds; and touching the time they require to their generation or delation.*

207. AFTER that sound is created (which is in a moment) we find it continueth some small time, melting by little and little. In this there is a wonderful error amongst men, who take this to be a continuance of the first sound;

VOL. I.

R 1

whereas



whereas (in truth) it is a renovation, and not a continuance: for the body percussed hath, by reason of the percussion, a trepidation wrought in the minute parts, and so reneweth the percussion of the air. This appeareth manifestly, because that the melting sound of a bell, or of a string stricken, which is thought to be a continuance, ceaseth as soon as the bell or string are touched. As in a virginal, as soon as ever the jack falleth, and toucheth the string, the sound ceaseth; and in a bell, after you have chimed upon it, if you touch the bell the sound ceaseth. And in this you must distinguish that there are two trepidations: the one manifest and local; as of the bell when it is perisse: the other secret, of the minute parts; such as is described in the ninth instance. But it is true, that the local helpeth the secret greatly. We see likewise that in pipes, and other wind-instruments, the sound lasteth no longer than the breath bloweth. It is true, that in organs there is a confused murmur for a while after you have played; but that is but while the bellows are in falling.

208. It is certain, that in the noise of great ordnance, where many are shot off together, the sound will be carried (at the least) twenty miles upon the land, and much farther upon the water. But then it will come to the ear, not in the instant of the shooting off, but it will come an hour or more later. This must needs be a continuance of the first sound; for there is no trepidation which should renew it. And the touching of the ordnance would not extinguish the sound the sooner: so that in great sounds the continuance is more than momentary.

209. To try exactly the time wherein sound is delated, let a man stand in a steeple, and have with him a taper; and let some vail be put before the taper; and let another man stand in the field a mile off. Then let him in the steeple strike the bell; and in the same instant withdraw the vail; and so let him in the field tell by his pulse what distance of time there is between the light seen, and the sound heard: for it is certain that the delation of light is in an instant. This may be tried in far greater distances, allowing greater lights and sounds.

210. It is generally known and observed, that light, and the object of sight, move swifter than sound; for we see the flash of a piece is seen sooner, than the noise is heard. And in hewing wood, if one be some distance off, he shall see the arm lifted up for a second stroke, before he hear the noise of the first. And the greater the distance, the greater is the prevention: as we see in thunder which is far off, where the lightning precedeth the crack a good space.

211. COLOURS, when they represent themselves to the eye, fade not, nor melt not by degrees, but appear still in the same strength; but sounds melt and vanish by little and little. The cause is, for that colours participate nothing with the motion of the air, but sounds do. And it is a plain argument, that sound participateth of some local motion of the air (as a cause *sine qua non*) in that it perisheth so suddenly; for in every section or impulsion of the air, the air doth suddenly restore and reunite itself; which the water also doth, but nothing so swiftly.

*Experiments in consort touching the passage and interceptions of sounds.*

In the trials of the passage, or not passage of sounds, you must take heed you mistake not the passing by the sides of a body, for the passing through a body; and therefore you must make the intercepting body very close; for sound will pass through a small chink.

212. WHERE sound passeth through a hard or close body (as through water; through a wall; through metal, as in hawks bells stopped, *etc.*) the hard or close body must be but thin and small; for else it deadeth and extinguisheth the sound utterly. And therefore in the experiment of speaking in air under water, the voice must not be very deep within the water: for then the sound pierceth not. So if you speak on the farther side of a close wall, if the wall be very thick you shall not be heard: and if there were an hog'shead empty, whereof the sides were some two foot thick, and the bung-hole stopped; I conceive the resounding sound, by the communication of the outward air with the air within, would be little or none: but only you shall hear the noise of the outward knock, as if the vessel were full.



213. It is certain, that in the passage of sounds through hard bodies, the spirit or pneumatical part of the hard body itself doth co-operate; but much better when the sides of that hard body are struck, than when the percussion is only within, without touch of the sides. Take therefore a hawk's bell, the holes stopped up, and hang it by a thread within a bottle glass, and stop the mouth of the glass very close with wax; and then shake the glass, and see whether the bell give any sound at all, or how weak: but note, that you must instead of the thread take a wire; or else let the glass have a great belly; lest when you shake the bell, it dash upon the sides of the glass.

214. It is plain, that a very long and downright arch for the sound to pass, will extinguish the sound quite; so that that sound, which would be heard over a wall, will not be heard over a church; nor that sound, which will be heard if you stand some distance from the wall, will be heard if you stand close under the wall.

215. Soft and foraminous bodies, in the first creation of the sound, will dead it; for the striking against cloth or furr will make little sound; as hath been said: but in the passage of the sound, they will admit it better than harder bodies; as we see, that curtains and hangings will not stay the sound much; but glass-windows, if they be very close, will check a sound more, than the like thickness of cloth. We see also in the rumbling of the belly, how easily the sound passeth through the guts and skin.

216. It is worthy the enquiry, whether great sounds (as of ordnance or bells) become not more weak and exile when they pass through small crannies. For the subtilties of articulate sounds (it may be) may pass through small crannies not confused; but the magnitude of the sound (perhaps) not so well.

*Experiments in consort touching the medium of sounds.*

217. THE mediums of sounds are air; soft and porous bodies; also water. And hard bodies refuse not altogether to be mediums of sounds. But all of them are dull and unapt deferents, except the air.

218. In air, the thinner or drier air carrieth not the sound so well as the more dense; as appeareth in night sounds and evening sounds, and sounds in moist weather and southern winds. The reason is already mentioned in the title of majoration of sounds; being for that thin air is better pierced; but thick air preserveth the sound better from waste: let further trial be made by hollowing in mists and gentle showers; for (it may be) that will somewhat dead the sound.

219. How far forth flame may be a medium of sounds (especially of such sounds as are created by air, and not betwixt hard bodies) let it be tried in speaking where a bonfire is between; but then you must allow for some disturbance the noise that the flame itself maketh.

220. WHETHER any other liquors, being made mediums, cause a diversity of sound from water, it may be tried: as by the knapping of the tongs; or striking of the bottom of a vessel, filled either with milk, or with oil; which though they be more light, yet are they more unequal bodies than air.

Of the natures of the mediums we have now spoken; as for the disposition of the said mediums, it doth consist in the penning, or not penning of the air; of which we have spoken before in the title of delation of sounds: it consisteth also in the figure of the concave through which it passeth; of which we will speak next.

*Experiments in consort, what the figures of the pipes, or concaves, or the bodies deferent, conduce to the sounds.*

How the figures of pipes, or concaves, through which sounds pass, or of other bodies deferent, conduce to the variety and alteration of the sounds; either in respect of the greater quantity, or less quantity of air, which the concaves receive; or in respect of the carrying of sounds longer and shorter way; or in respect of many other circumstances; they have been touched, as falling into other titles. But those figures which we now are to speak of, we intend



to be, as they concern the lines through which the sound passeth; as straight, crooked, angular, circular, *etc.*

221. THE figure of a bell partaketh of the pyramis, but yet coming off and dilating more suddenly. The figure of a hunter's horn and cornet, is oblique; yet they have likewise straight horns; which if they be of the same bore with the oblique, differ little in sound, save that the straight require somewhat a stronger blast. The figures of recorders, and flutes, and pipes are straight; but the recorder hath a less bore and a greater, above and below. The trumpet hath the figure of the letter S: which maketh that purling sound, *etc.* Generally the straight line hath the clearest and roundest sound, and the crooked, the more hoarse and jarring.

222. Of a sinuous pipe that may have some four flexions, trial would be made. Likewise of a pipe made like a cross, open in the midst. And so likewise of an angular pipe: and see what will be the effects of these several sounds. And so again of a circular pipe; as if you take a pipe perfect round, and make a hole whereinto you shall blow, and another hole not far from that; but with a traverse or stop between them; so that your breath may go the round of the circle, and come forth at the second hole. You may try likewise percussions of solid bodies of several figures; as globes, flats, cubes, crosses, triangles, *etc.* and their combinations, as flat against flat, and convex against convex, and convex against flat, *etc.* and mark well the diversities of the sounds. Try also the difference in sound of several craftitudes of hard bodies percussed; and take knowledge of the diversities of the sounds. I myself have tried, that a bell of gold yieldeth an excellent sound, not inferior to that of silver or brass, but rather better: yet we see that a piece of money of gold soundeth far more flat than a piece of money of silver.

223. THE harp hath the concave not along the strings, but a-cross the strings; and no instrument hath the sound so melting and prolonged, as the Irish harp. So as I suppose, that if a virginal were made with a double concave, the one all the length, as the virginal hath; the other at the end of the strings, as the harp hath; it must needs make the sound perfecter, and not so shallow and jarring. You may try it without any sound-board along, but only harp-wise, at one end of the strings; or lastly, with a double concave, at each end of the strings one.

*Experiments in consort touching the mixture of sounds.*

224. THERE is an apparent diversity between the species visible and audible in this, that the visible doth not mingle in the medium, but the audible doth. For if we look abroad, we see heaven, a number of stars, trees, hills, men, beasts, at once. And the species of the one doth not confound the other. But if so many sounds came from several parts, one of them would utterly confound the other. So we see, that voices or consorts of musick do make an harmony by mixture, which colours do not. It is true nevertheless, that a great light drowneth a smaller, that it cannot be seen; as the sun that of a glow-worm; as well as a great sound drowneth a lesser. And I suppose likewise, that if there were two lanterns of glass, the one a crimson, and the other an azure, and a candle within either of them, those coloured lights would mingle, and cast upon a white paper a purple colour. And even in colours, they yield a faint and weak mixture: for white walls make rooms more lightsome than black, *etc.* but the cause of the confusion in sounds, and the inconfusion in species visible, is, for that the sight worketh in right lines, and maketh several cones; and so there can be no coincidence in the eye or visual point: but sounds, that move in oblique and arcuate lines, must needs encounter and disturb the one the other.

225. THE sweetest and best harmony is, when every part or instrument is not heard by itself, but a consation of them all; which requireth to stand some distance off. Even as it is in the mixture of perfumes; or the taking of the smells of several flowers in the air.

226. THE disposition of the air in other qualities, except it be joined with sound, hath no great operation upon sounds: for whether the air be lightsome or dark, hot or cold, quiet or stirring (except it be with noise) sweet-smelling,



or sinking, or the like; it importeth not much: some petty alteration or difference it may make.

227. BUT sounds do disturb and alter the one the other: sometimes the one drowning the other, and making it not heard; sometimes the one jarring and discording with the other, and making a confusion; sometimes the one mingling and compounding with the other, and making an harmony.

228. Two voices of like loudness, will not be heard twice as far as one of them alone; and two candles of like light, will not make things seen twice as far off as one. The cause is profound; but it seemeth that the impressions from the objects of the senses do mingle respectively, every one with his kind; but not in proportion, as is before demonstrated: and the reason may be, because the first impression, which is from privative to active (as from silence to noise, or from darkness to light) is a greater degree, than from less noise to more noise, or from less light to more light. And the reason of that again may be, for that the air, after it hath received a charge, doth not receive a surcharge, or greater charge, with like appetite as it doth the first charge. As for the increase of virtue, generally, what proportion it beareth to the increase of the matter, it is a large field, and to be handled by itself.

*Experiments in consort touching melioration of sounds.*

229. ALL reflexions concurrent do make sounds greater; but if the body that createth either the original sound, or the reflexion, be clean and smooth, it maketh them sweeter. Trial may be made of a lute or viol, with the belly of polished brass instead of wood. We see that even in the open air, the wire string is sweeter than the string of guts. And we see that for reflexion water excelleth; as in musick near the water, or in echo's.

230. It hath been tried, that a pipe a little moisten'd on the inside, but yet so as there be no drops left, maketh a more solemn sound, than if the pipe were dry: but yet with a sweet degree of sibilation or purling; as we touched it before in the title of equality. The cause is, for that all things porous being superficially wet, and (as it were) between dry and wet, become a little more even and smooth; but the purling (which must needs proceed of inequality) I take to be bred between the smoothness of the inward surface of the pipe, which is wet, and the rest of the wood of the pipe unto which the wet cometh not, but it remaineth dry.

231. IN frosty weather musick within doors soundeth better. Which may be by reason not of the disposition of the air, but of the wood or string of the instrument, which is made more crisp, and so more porous and hollow: and we see that old lutes sound better than new for the same reason. And so do lute-strings that have been kept long.

232. SOUND is likewise meliorated by the mingling of open air with pent air; therefore trial may be made of a lute or viol with a double belly; making another belly with a knot over the strings; yet so, as there be room enough for the strings, and room enough to play below that belly. Trial may be made also of an Irish harp, with a concave on both sides; whereas it useth to have it but on one side. The doubt may be, lest it should make too much resounding; whereby one note would overtake another.

233. If you sing in the hole of a drum, it maketh the singing more sweet. And so I conceive it would, if it were a song in parts sung into several drums; and for handiomeness and strangeness sake, it would not be amiss to have a curtain between the place where the drums are and the hearers.

234. WHEN a sound is created in a wind-instrument between the breath and the air, yet if the sound be communicated with a more equal body of the pipe, it meliorateth the sound. For (no doubt) there would be a differing sound in a trumpet or pipe of wood; and again in a trumpet or pipe of brass. It were good to try recorders and hunters horns of brass, what the sound would be.

235. SOUNDS are meliorated by the intension of the sense, where the common sense is collected most to the particular sense of hearing, and the sight suspended: and therefore sounds are sweeter (as well as greater) in the night, than



in the day; and I suppose they are sweeter to blind men than to others: and it is manifest that between sleeping and waking (when all the senses are bound and suspended) music is far sweeter, than when one is fully waking.

*Experiments in consort touching the imitation of sounds.*

236. It is a thing strange in nature when it is attentively considered, how children, and some birds, learn to imitate speech. They take no mark (at all) of the motion of the mouth of him that speaketh, for birds are as well taught in the dark as by light. The sounds of speech are very curious and exquisite: so one would think it were a lesson hard to learn. It is true that it is done with time, and by little and little, and with many essays and profers: but all this discharge not the wonder. It would make a man think (though this which we shall say may seem exceeding strange) that there is some transmission of spirits; and that the spirits of the teacher put in motion, should work with the spirits of the learner a pre-disposition to offer to imitate; and so to perfect the imitation by degrees. But touching operations by transmissions of spirits (which is one of the highest secrets in nature) we shall speak in due place; chiefly when we come to inquire of imagination. But as for imitation, it is certain that there is in men and other creatures a pre-disposition to imitate. We see how ready apes and monkeys are, to imitate all motions of man; and in the catching of dotrels, we see how the foolish bird playeth the ape in gestures: and no man (in effect) doth accompany with others, but he learneth (ere he is aware) some gesture, or voice, or fashion of the other.

237. In imitation of sounds, that man should be the teacher is no part of the matter; for birds will learn one of another; and there is no reward by feeding, or the like, given them for the imitation; and besides, you shall have parrots that will not only imitate voices, but laughing, knocking, squeaking of a door upon the hinges, or of a cart-wheel; and (in effect) any other noise they hear.

238. No beast can imitate the speech of man but birds only; for the ape it self, that is so ready to imitate otherwise, attaineth not any degree of imitation of speech. It is true, that I have known a dog, that if one howled in his ear, he would fall a howling a great while. What should be the aptness of birds in comparison of beasts, to imitate the speech of man, may be further enquired. We see that beasts have those parts which they count the instruments of speech (as lips, teeth, *etc.*) liker unto man than birds. As for the neck, by which the throat passeth, we see many beasts have it for the length as much as birds. What better gorge or artery birds have, may be farther enquired. The birds that are known to be speakers, are parrots, pies, jays, daws, and ravens. Of which parrots have an adunque bill, but the rest not.

239. But I conceive, that the aptness of birds is not so much in the conformity of the organs of speech, as in their attention. For speech must come by hearing and learning; and birds give more heed, and mark sounds more than beasts; because naturally they are more delighted with them, and practise them more, as appeareth in their singing. We see also that those that teach birds to sing, do keep them waking to increase their attention. We see also, that cock birds amongst singing birds are ever the better singers; which may be because they are more lively and listen more.

240. Labour and intention to imitate voices, doth conduce much to imitation: and therefore we see that there be certain *Pantomimi*, that will represent the voices of players of interludes so to life, as if you see them not you would think they were those players themselves; and so the voices of other men that they hear.

241. There have been some that could counterfeit the distance of voices (which is a secondary object of hearing) in such sort, as when they stand fast by you, you would think the speech came from afar off, in a fearful manner. How this is done may be further enquired. But I see no great use of it but for imposture, in counterfeiting ghosts or spirits.



*Experiments in concert touching the reflexion of sounds.*

THERE be three kinds of reflexions of sounds; a reflexion concurrent, a reflexion iterant, which we call echo; and a super-reflexion, or an echo of an echo, whereof the first hath been handled in the title of magnitude of sounds: the latter two we will now speak of.

242. THE reflexion of species visible by mirrors you may command; because passing in right lines they may be guided to any point: but the reflexion of sounds is hard to master; because the sound filling great spaces in arched lines, cannot be so guided: and therefore we see there hath not been practised any means to make artificial echo's. And no echo already known returneth in a very narrow room.

243. THE natural echo's are made upon walls, woods, rocks, hills, and banks; as for waters, being near, they make a concurrent echo; but being farther off (as upon a large river) they make an iterant echo: for there is no difference between the concurrent echo and the iterant, but the quickness or slowness of the return. But there is no doubt but water doth help the delation of echo; as well as it helpeth the delation of original sounds.

244. IT is certain (as hath been formerly touched) that if you speak through a trunk stopped at the farther end, you shall find a blast return upon your mouth, but no sound at all. The cause is, for that the closeness which preserveth the original, is not able to preserve the reflected sound: besides that echo's are seldom created but by loud sounds. And therefore there is less hope of artificial echo's in air pent in a narrow concave. Nevertheless it hath been tried, that one leaning over a well of 25 fathom deep, and speaking, though but softly, (yet not so soft as a whisper) the water returned a good audible echo. It would be tried, whether speaking in caves, where there is no issue save where you speak, will not yield echo's as wells do.

245. THE echo cometh as the original sound doth, in a round orb of air: it were good to try the creating of the echo where the body repercussing maketh an angle: as against the return of a wall, *etc.* Also we see that in mirrors there is the like angle of incidence, from the object to the glass, and from the glass to the eye. And if you strike a ball side-long, not full upon the surface, the rebound will be as much the contrary way: whether there be any such reflexion in echo's (that is, whether a man shall hear better if he stand aside the body repercussing, than if he stand where he speaketh, or any where in a right line between) may be tried. Trial likewise would be made, by standing nearer the place of repercussing than he that speaketh; and again by standing farther off than he that speaketh; and so knowledge would be taken, whether echo's, as well as original sounds, be not strongest near hand.

246. THERE be many places where you shall hear a number of echo's one after another: and it is when there is variety of hills or woods, some nearer, some farther, off: so that the return from the farther, being last created, will be likewise last heard.

247. AS the voice goeth round, as well towards the back, as towards the front of him that speaketh; so likewise doth the echo: for you have many back echo's to the place where you stand.

248. TO make an echo that will report three, or four, or five words distinctly, it is requisite that the body repercussing be a good distance off: for if it be near, and yet not so near as to make a concurrent echo, it choppeth with you upon the sudden. It is requisite likewise that the air be not much pent: for air at a great distance pent, worketh the same effect with air at large in a small distance. And therefore in the trial of speaking in the well, though the well was deep, the voice came back suddenly, and would bear the report but of two words.

249. FOR echo's upon echo's, there is a rare instance thereof in a place, which I will now exactly describe. It is some three or four miles from Paris, near a town called Pont-Charanton; and some bird-bolt shot of more from the river of Sein. The room is a chapel or small church. The walls all standing, both



both at the sides and at the ends. Two rows of pillars, after the manner of isles of churches, also standing; the roof all open, not so much as any embowment near any of the walls left. There was against every pillar a stack of billets above a man's height; which the watermen that bring wood down the Sein in stacks, and not in boats, laid there (as it seemeth) for their ease. Speaking at the one end, I did hear it return the voice thirteen several times; and I have heard of others, that it would return sixteen times: for I was there about three of the clock in the afternoon: and it is best (as all other echo's are) in the evening. It is manifest that it is not echo's from several places, but a tossing of the voice, as a ball, to and fro; like to reflexions in looking-glasses, where if you place one glass before and another behind, you shall see the glass behind with the image, within the glass before; and again, the glass before in that; and divers such super-reflexions, till the *species speciei* at last die. For it is every return weaker and more shady. In like manner the voice in that chapel createth *speciem speciei*, and maketh succeeding super-reflexions; for it melteth by degrees, and every reflexion is weaker than the former: so that if you speak three words, it will (perhaps) some three times report you the whole three words; and then the two latter words for some times; and then the last word alone for some times; still fading and growing weaker. And whereas in echo's of one return, it is much to hear four or five words; in this echo of so many returns upon the matter, you hear above twenty words for three.

250. THE like echo upon echo, but only with two reports, hath been observed to be, if you stand between a house and a hill, and lure towards the hill. For the house will give a back echo; one taking it from the other, and the latter the weaker.

251. THERE are certain letters that an echo will hardly express; as S for one, especially being principal in a word. I remember well, that when I went to the echo at Pont-Charenton, there was an old Parisian, that took it to be the work of spirits, and of good spirits. For (said he) call *Satan*, and the echo will not deliver back the devil's name; but will say *va t'en*; which is as much in French as *apage*, or avoid. And thereby I did hap to find, that an echo would not return S, being but a hissing and an interior sound.

252. ECHO's are some more sudden, and chop again as soon as the voice is delivered; as hath been partly said: others are more deliberate, that is, give more space between the voice and the echo; which is caused by the local nearness or distance: some will report a longer train of words; and some a shorter: some more loud (full as loud as the original, and sometimes more loud) and some weaker and fainter.

253. WHEN echo's come from several parts at the same distance, they must needs make (as it were) a choir of echo's, and so make the report greater, and even a continued echo; which you shall find in some hills that stand encompassed theatre-like.

254. IT doth not yet appear that there is refraction in sounds, as well as in species visible. For I do not think, that if a sound should pass through divers mediums (as air, cloth, wood) it would deliver the sound in a different place from that unto which it is deferred; which is the proper effect of refraction. But majoration, which is also the work of refraction, appeareth plainly in sounds (as hath been handled at full) but it is not by diversity of mediums.

*Experiments in consort touching the consent and dissent between visibles and audibles.*

WE have obiter, for demonstration's sake, used in divers instances the examples of the sight and things visible, to illustrate the nature of sounds: but we think good now to prosecute that comparison more fully.

*Consent of visibles and audibles.*

255. BOTH of them spread themselves in round, and fill a whole floor or orb unto certain limits: and are carried a great way: and do languish and lessen by degrees, according to the distance of the objects from the sensories.

256. BOTH



256. БОТН of them have the whole species in every small portion of the air or medium, so as the species do pass through small crannies without confusion: as we see ordinarily in levels, as to the eye; and in crannies or chinks, as to the sound.

257. БОТН of them are of a sudden and easy generation and delation; and likewise perish swiftly and suddenly; as if you remove the light, or touch the bodies that give the sound.

258. БОТН of them do receive and carry exquisite and accurate differences; as of colours, figures, motions, distances, in visibles; and of articulate voices, tones, songs and quaverings, in audibles.

259. БОТН of them, in their virtue and working, do not appear to emit any corporal substance into their mediums, or the orb of their virtue; neither again to raise or stir any evident local motion in their mediums as they pass; but only to carry certain spiritual species; the perfect knowledge of the cause whereof, being hitherto scarcely attained, we shall search and handle in due place.

260. БОТН of them seem not to generate or produce any other effect in nature, but such as appertaineth to their proper objects and senses, and are otherwise barren.

261. БУТ both of them, in their own proper action, do work three manifest effects. The first, in that the stronger species drowneth the lesser; as the light of the sun, the light of a glow-worm; the report of an ordnance, the voice: The second, in that an object of surcharge or excess destroyeth the sense; as the light of the sun the eye; a violent sound (near the ear) the hearing: The third, in that both of them will be reverberate; as in mirours, an din echo's.

262. НЕИТНЕР of them doth destroy or hinder the species of the other, although they encounter in the same medium; as light or colour hinder not sound, nor *e contra*.

263. БОТН of them affect the sense in living creatures, and yield objects of pleasure and dislike: yet nevertheless the objects of them do also (if it be well observed) affect and work upon dead things; namely such as have some conformity with the organs of the two senses: as visibles work upon a looking-glass, which is like the pupil of the eye; and audibles upon the places of echo, which resemble in some sort the cavern and structure of the ear.

264. БОТН of them do diversly work, as they have their medium diversly disposed. So a trembling medium (as smok) maketh the object seem to tremble; and a rising or falling medium (as winds) maketh the sounds to rise or fall.

265. ТО both, the medium, which is the most propitious and conductible, is air; for glass or water, *etc.* are not comparable.

266. ИN both of them, where the object is fine and accurate, it conducteth much to have the sense intensive and erect; in so much as you contract your eye when you would see sharply; and erect your ear when you would hear attentively; which in beasts that have ears moveable is most manifest.

267. ТНЕ beams of light, when they are multiplied and conglomerate, generate heat; which is a different action from the action of sight: and the multiplication and conglomeration of sounds doth generate an extreme rarefaction of the air; which is an action materiate, differing from the action of sound; if it be true (which is anciently reported) that birds with great shouts have fallen down.

*Dissents of visibles and audibles.*

268. ТНЕ species of visibles seem to be emissions of beams from the object seen, almost like odours, save that they are more incorporeal: but the species of audibles seem to participate more with local motion, like percussions, or impressions made upon the air. So that whereas all bodies do seem to work in two manners, either by the communication of their natures, or by the impressions and signatures of their motions; the diffusion of species visible seemeth to participate more of the former operation, and the species audible of the latter.



269. THE species of audibles seem to be carried more manifestly through the air than the species of visibles: for (I conceive) that a contrary strong wind will not much hinder the sight of visibles, as it will do the hearing of sounds;

270. THERE is one difference above all others between visibles and audibles; that is the most remarkable, as that whereupon many smaller differences do depend: namely, that visibles (except lights) are carried in right lines, and audibles in arcuate lines. Hence it cometh to pass, that visibles do not intermingle and confound one another, as hath been said before; but sounds do. Hence it cometh, that the solidity of bodies doth not much hinder the sight, so that the bodies be clear, and the pores in a right line, as in glass, crystal, diamonds, water, *etc.* but a thin scarf or handkerchief, though they be bodies nothing so solid, hinder the sight: whereas (contrariwise) these porous bodies do not much hinder the hearing, but solid bodies do almost stop it, or at the least attenuate it. Hence also it cometh, that to the reflexion of visibles small glasses suffice; but to the reverberation of audibles are required greater spaces, as hath likewise been said before.

271. VISIBLES are seen farther off than sounds are heard; allowing nevertheless the rate of their bigness: for otherwise a great sound will be heard farther off, than a small body seen.

272. VISIBLES require (generally) some distance between the object and the eye, to be better seen; whereas in audibles, the nearer the approach of the sound is to the sense, the better. But in this there may be a double error. The one because to seeing there is required light; and any thing that toucheth the pupil of the eye (all over) excludeth the light. For I have heard of a person very credible (who himself was cured of a cataract in one of his eyes) that while the silver needle did work upon the sight of his eye, to remove the film of the cataract, he never saw any thing more clear or perfect than that white needle: which (no doubt) was, because the needle was lesser than the pupil of the eye, and so took not the light from it. The other error may be, for that the object of sight doth strike upon the pupil of the eye directly without any interception; whereas the cave of the ear doth hold off the sound a little from the organ: and so nevertheless there is some distance required in both.

273. VISIBLES are swifter carried to the sense than audibles; as appeareth in thunder and lightning, flame and report of a piece, motion of the air in hewing of wood. All which have been set down heretofore, but are proper for this title.

274. I conceive also, that the species of audibles do hang longer in the air than those of visibles: for although even those of visibles do hang some time, as we see in rings turned, that shew like spheres; in lute-strings filliped; a fire-brand carried along, which leaveth a train of light behind it; and in the twilight; and the like: yet I conceive that sounds stay longer, because they are carried up and down with the wind; and because of the distance of the time in ordnance discharged, and heard twenty miles off.

275. IN visibles there are not found objects so odious and ingrate to the sense as in audibles. For foul sights do rather displease, in that they excite the memory of foul things, than in the immediate objects. And therefore in pictures, those foul sights do not much offend; but in audibles, the grating of a saw, when it is sharpened, doth offend so much, as it setteth the teeth on edge. And any of the harsh discords in musick the ear doth straightways refuse.

276. IN visibles, after great light, if you come suddenly into the dark, or contrariwise, out of the dark into a glaring light, the eye is dazzled for a time, and the sight confused; but whether any such effect be after great sounds, or after a deep silence, may be better enquired. It is an old tradition, that those that dwell near the cataracts of Nilus, are stricken deaf: but we find no such effect in cannoniers, nor millers, nor those that dwell upon bridges.

277. IT seemeth that the impression of colour is so weak, as it worketh not but by a cone of direct beams, or right lines, whereof the basis is in the object, and the vertical point in the eye; so as there is a corradation and conjunction of beams; and those beams so sent forth, yet are not of any force to beget



the like borrowed or second beams, except it be by reflexion, whereof we speak not. For the beams pass, and give little tincture to that air which is adjacent; which if they did, we should see colours out of a right line. But as this is in colours, so otherwise it is in the body of light. For when there is a screen between the candle and the eye, yet the light passeth to the paper whereon one writeth; so that the light is seen where the body of the flame is not seen, and where any colour (if it were placed where the body of the flame is) would not be seen. I judge that sound is of this latter nature; for when two are placed on both sides of a wall, and the voice is heard, I judge it is not only the original sound which passeth in an arched line; but the sound which passeth above the wall in a right line, begetteth the like motion round about it as the first did, though more weak.

*Experiments in consort touching the sympathy or antipathy of sounds one with another.*

278. ALL concords and discords of musick are (no doubt) sympathies and antipathies of sounds. And so (likewise) in that musick which we call broken musick, or consort musick, some consorts of instruments are sweeter than others (a thing not sufficiently yet observed;) as the Irish harp and base viol agree well: the recorder and stringed musick agree well: organs and the voice agree well, etc. But the virginals and the lute; or the Welsh harp and Irish harp; or the voice and pipes alone, agree not so well; but for the melioration of musick, there is yet much left (in this point of exquisite consorts) to try and enquire.

279. THERE is a common observation, that if a lute or viol be laid upon the back, with a small straw upon one of the strings; and another lute or viol be laid by it; and in the other lute or viol the unison to that string be stricken, it will make the string move; which will appear both to the eye, and by the straw's falling off. The like will be, if the diapason or eight to that string be stricken, either in the same lute or viol, or in others lying by; but in none of these there is any report of sound that can be discerned, but only motion.

280. It was devised, that a viol should have a lay of wire-strings below, as close to the belly as a lute; and then the strings of guts mounted upon a bridge as in ordinary viols; to the end that by this means the upper strings stricken, should make the lower resound by sympathy, and so make the musick the better; which if it be to purpose, then sympathy worketh as well by report of sound as by motion. But this device I conceive to be of no use, because the upper strings, which are stopped in great variety, cannot maintain a diapason or unison with the lower, which are never stopped. But if it should be of use at all, it must be in instruments which have no stops; as virginals and harps; wherein trial may be made of two rows of strings, distant the one from the other.

281. THE experiment of sympathy may be transferred (perhaps) from instruments of strings, to other instruments of sound. As to try, if there were in one steple two bells of unison, whether the striking of the one would move the other, more than if it were another accord: and so in pipes (if they be of equal bore and sound) whether a little straw or feather would move in the one pipe, when the other is blown at an unison.

282. It seemeth, both in ear and eye, the instrument of sense hath a sympathy or similitude with that which giveth the reflexion (as hath been touched before) for as the sight of the eye is like a chrysal, or glass, or water; so is the ear a sinuous cave, with a hard bone, to stop and reverberate the sound: which is like to the places that report echo's.

*Experiments in consort touching the hindering or helping of the hearing.*

283. WHEN a man yawneth, he cannot hear so well. The cause is, for that the membrane of the ear is extended; and so rather casteth off the sound than draweth it to.

284. WE hear better when we hold our breath than contrary; inasmuch as in all listening to attain a sound afar off, men hold their breath. The cause is, for that in all expiration the motion is outwards; and therefore rather driveth away the voice than draweth it: and besides we see, that in all labour to do things with



with any strength, we hold the breath; and listening after any sound that is heard with difficulty, is a kind of labour.

285. LET it be tried, for the help of the hearing (and I conceive it likely to succeed) to make an instrument like a tunnel; the narrow part whereof may be of the bigness of the hole of the ear; and the broader end much larger, like a bell at the skirts; and the length half a foot or more. And let the narrow end of it be set close to the ear: and mark whether any sound, abroad in the open air, will not be heard distinctly from farther distance, than without that instrument; being (as it were) an ear-spectacle. And I have heard there is in Spain an instrument in use to be set to the ear, that helpeth somewhat those that are thick of hearing.

286. If the mouth be shut close, nevertheless there is yielded by the roof of the mouth a murmur; such as is used by dumb men. But if the nostrils be likewise stopped, no such murmur can be made: except it be in the bottom of the palate towards the throat. Whereby it appeareth manifestly, that a sound in the mouth, except such as aforesaid, if the mouth be stopped, passeth from the palate through the nostrils.

*Experiments in concert touching the spiritual and fine nature of sounds.*

287. THE repercussion of sounds (which we call echo) is a great argument of the spiritual essence of sounds. For if it were corporeal, the repercussion should be created in the same manner, and by like instruments, with the original sound: but we see what a number of exquisite instruments must concur in speaking of words, whereof there is no such matter in the returning of them, but only a plain stop and repercussion.

288. THE exquisite differences of articulate sounds, carried along in the air, shew that they cannot be signatures or impressions in the air, as hath been well refuted by the ancients. For it is true, that seals make excellent impressions; and so it may be thought of sounds in their first generation: but then the delation and continuance of them without any new sealing, shew apparently they cannot be impressions.

289. ALL sounds are suddenly made, and do suddenly perish: but neither that, nor the exquisite differences of them, is matter of so great admiration: for the quaverings and warblings in lutes and pipes are as swift; and the tongue (which is no very fine instrument) doth in speech make no fewer motions than there be letters in all the words which are uttered. But that sounds should not only be so speedily generated, but carried so far every way in such a momentary time, deserves more admiration. As for example; if a man stand in the middle of a field and speak aloud, he shall be heard a furlong in round; and that shall be in articulate sounds; and those shall be entire in every little portion of the air; and this shall be done in the space of less than a minute.

290. THE sudden generation and perishing of sounds, must be one of these two ways. Either that the air suffereth some force by sound, and then restoreth itself, as water doth; which being divided, maketh many circles, till it restore itself to the natural consistance: or otherwise, that the air doth willingly imbibe the sound as grateful, but cannot maintain it; for that the air hath (as it should seem) a secret and hidden appetite of receiving the sound at the first; but then other gross and more material qualities of the air straightways suffocate it; like unto flame, which is generated with alacrity, but straight quenched by the enmity of the air or other ambient bodies.

There be these differences (in general) by which sounds are divided: 1. Musical, immusical. 2. Treble, base. 3. Flat, sharp. 4. Soft, loud. 5. Exterior, interior. 6. Clean, harsh or purling. 7. Articulate, inarticulate.

We have laboured (as may appear) in this inquisition of sounds diligently; both because sound is one of the most hidden portions of nature (as we said in the beginning) and because it is a virtue which may be called incorporeal and immaterial; whereof there be in nature but few. Besides, we were willing (now in these our first centuries) to make a pattern or precedent of an exact inquisition; and we shall do the like hereafter in some other subjects which require it. For we desire that men should learn and perceive, how severe a thing the true inquisition of



of nature is; and should accustom themselves by the light of particulars to enlarge their minds to the amplitude of the world, and not reduce the world to the narrowness of their minds.

*Experiment solitary touching the orient colours in dissolution of metals.*

291. METALS give orient and fine colours in dissolutions; as gold giveth an excellent yellow; quicksilver an excellent green; tin giveth an excellent azure: likewise in their putrefactions or rusts; as vermillion, verdegrease, bise, cirrus, *etc.* and likewise in their vitrifications. The cause is, for that by their strength of body they are able to endure the fire or strong waters, and to be put into an equal posture; and again to retain part of their principal spirit; which two things (equal posture, and quick spirits) are required chiefly to make colours lightesome.

*Experiment solitary touching prolongation of life.*

292. It conduceth unto long life, and to the more placid motion of the spirits, which thereby do less prey and consume the juice of the body, either that mens actions be free and voluntary, that nothing be done *invidia Minerva*, but *secundum genium*; or on the other side, that the actions of men be full of regulation, and commands within themselves: for then the victory and performing of the command giveth a good disposition to the spirits; especially if there be a proceeding from degree to degree; for then the sense of the victory is the greater. An example of the former of these is in a country life; and of the latter in monks and philosophers, and such as do continually enjoin themselves.

*Experiment solitary touching appetite of union in bodies.*

293. It is certain that in all bodies there is an appetite of union and eviation of solution of continuity: and of this appetite there be many degrees; but the most remarkable and fit to be distinguished are three. The first in liquors; the second in hard bodies; and the third in bodies cleaving or tenacious. In liquors this appetite is weak: we see in liquors, the shredding of them in stillicides (as hath been said;) the falling of them in round drops (which is the form of union;) and the staying of them for a little time in bubbles and froth. In the second degree or kind, this appetite is strong; as in iron, in stone, in wood, *etc.* In the third, this appetite is in a medium between the other two: for such bodies do partly follow the touch of another body, and partly stick and continue to themselves; and therefore they rope, and draw themselves in threads; as we see in pitch, glue, birdlime, *etc.* But note, that all solid bodies are cleaving more or less: and that they love better the touch of somewhat that is tangible, than of air. For water in small quantity cleaveth to any thing that is solid; and so would metal too, if the weight drew it not off. And therefore gold foliate, or any metal foliate, cleaveth: but those bodies which are noted to be clammy and cleaving, are such as have a more indifferent appetite (at once) to follow another body, and to hold to themselves. And therefore they are commonly bodies ill mixed; and which take more pleasure in a foreign body, than in preserving their own consistence; and which have little predominance in drought or moisture.

*Experiment solitary touching the like operations of heat and time.*

294. TIME and heat are fellows in many effects. Heat drieth bodies that do easily expire; as parchment, leaves, roots, clay, *etc.* And so doth time or age arefy; as in the same bodies, *etc.* Heat dissolveth and melteth bodies that keep in their spirits; as in divers liquefactions: and so doth time in some bodies of a softer consistence, as is manifest in honey, which by age waxeth more liquid; and the like in sugar; and so in old oil, which is ever more clear and more hot in medicinal use. Heat causeth the spirits to search some issue out of the body; as in the volatility of metals; and so doth time; as in the rust of metals. But generally heat doth that in small time, which age doth in long.

*Experiment solitary touching the differing operations of fire and time.*

295. Some things which pass the fire are softest at first, and by time grow hard,



as the crumb of bread. Some are harder when they come from the fire, and afterwards give again, and grow soft, as the crust of bread, biscuit, sweet meats, salt, *etc.* The cause is, for that in those things which wax hard with time, the work of the fire is a kind of melting; and in those that wax soft with time (contrariwise) the work of the fire is a kind of baking; and whatsoever the fire baketh, time doth in some degree dissolve.

*Experiment solitary touching motions by imitation.*

296. MOTIONS pass from one man to another, not so much by exciting imagination, as by invitation; especially if there be an aptness or inclination before. Therefore gaping, or yawning, and stretching do pass from man to man; for that that causeth gaping and stretching is, when the spirits are a little heavy by any vapour, or the like. For then they strive (as it were) to wring out and expel that which loadeth them. So men drowsy, and desirous to sleep, or before the fit of an ague, do use to yawn and stretch; and do likewise yield a voice or sound, which is an interjection of expulsion: so that if another be apt and prepared to do the like, he followeth by the sight of another. So the laughing of another maketh to laugh.

*Experiment solitary touching infectious diseases.*

297. THERE be some known diseases that are infectious; and others that are not. Those that are infectious are, first, such as are chiefly in the spirits, and not so much in the humours; and therefore pass easily from body to body: such are pestilences, lippitudes, and such like. Secondly, such as taint the breath, which we see passeth manifestly from man to man; and not invisibly, as the affects of the spirits do: such are consumptions of the lungs, *etc.* Thirdly, such as come forth to the skin, and therefore taint the air or the body adjacent; especially if they consist in an unctuous substance not apt to dissipate; such are scabs and leprosy. Fourthly, such as are merely in the humours, and not in the spirits, breath, or exhalations: and therefore they never infect but by touch only; and such a touch also as cometh within the *epidermis*; as the venom of the French-pox, and the biting of a mad dog.

*Experiment solitary touching the incorporation of powders and liquors.*

298. MOST powders grow more close and coherent by mixture of water, than by mixture of oil, though oil be the thicker body; as meal, *etc.* The reason is the congruity of bodies; which if it be more, maketh a perfecter inhibition and incorporation; which in most powders is more between them and water, than between them and oil: but painters colours ground, and adhes, do better incorporate with oil.

*Experiment solitary touching exercise of the body.*

299. MUCH motion and exercise is good for some bodies; and sitting and less motion for others. If the body be hot and void of superfluous moistures, too much motion hurteth: and it is an error in physicians, to call too much upon exercise. Likewise men ought to beware, that they use not exercise and a spare diet both: but if much exercise, then a plentiful diet; and if sparing diet, then little exercise. The benefits that come of exercise are, first, that it sendeth nourishment into the parts more forcibly. Secondly, that it helpeth to exert by sweat, and so maketh the parts assimilate the more perfectly. Thirdly, that it maketh the substance of the body more solid and compact; and so less apt to be consumed and depredated by the spirits. The evils that come of exercise are, first, that it maketh the spirits more hot and predatory. Secondly, that it doth absorb likewise, and attenuate too much the moisture of the body. Thirdly, that it maketh too great concussion (especially if it be violent) of the inward parts, which delight more in rest. But generally exercise, if it be much, is no friend to prolongation of life; which is one cause why women live longer than men, because they stir less.



*Experiment Solitary touching meats that induce satiety.*

300. Some food we may use long, and much, without glutting; as bread, flesh that is not fat or rank, *etc.* Some other (though pleasant) giuttech sooner; as sweet meats, fat meats, *etc.* The cause is, for that appetite consisteth in the emptiness of the mouth of the stomach; or possessing it with somewhat that is astringent; and therefore cold and dry. But things that are sweet and fat are more filling; and do swing and hang more about the mouth of the stomach; and go not down so speedily: and again turn sooner to choler, which is hot, and ever abateth the appetite. We see also, that another cause of satiety is an over-custom; and of appetite is novelty; and therefore meats, if the same be continually taken, induce loathing. To give the reason of the distaste of satiety, and of the pleasure in novelty; and to distinguish not only in meats and drinks, but also in motions, loves, company, delights, studies, what they be that custom maketh more grateful, and what more tedious, were a large field. But for meats, the cause is attraction, which is quicker, and more excited towards that which is new, than towards that whereof there remaineth a relish by former use. And (generally) it is a rule, that whatsoever is somewhat ingrate at first, is made grateful by custom; but whatsoever is too pleasing at first, groweth quickly to satiate.

N A T U R A L



## NATURAL HISTORY.

## CENTURY IV.

*Experiments in consort touching the clarification of liquors, and the accelerating thereof.*

**A**CCCELERATION of time, in works of nature, may well be esteemed *inter magnalia naturae*. And even in divine miracles, accelerating of the time is next to the creating of the matter. We will now therefore proceed to the enquiry of it: and for acceleration of germination, we will refer it over unto the place where we shall handle the subject of plants generally; and will now begin with other accelerations.

301. LIQUORS are (many of them) at the first thick and troubled; as mulse, wort, juices of fruits, or herbs expressed, *etc.* and by time they settle and clarify. But to make them clear before the time, is a great work; for it is a spur to nature, and putteth her out of her pace: and, besides, it is of good use for making drinks and sauces potable and serviceable speedily. But to know the means of accelerating clarification, we must first know the causes of clarification. The first cause is, by the separation of the grosser parts of the liquor from the finer. The second, by the equal distribution of the spirits of the liquor with the tangible parts: for that ever representeth bodies clear and untroubled. The third, by the refining the spirit itself, which thereby giveth to the liquor more splendor and more lustre.

302. FIRST, for separation, it is wrought by weight, as in the ordinary residence or settlement of liquors; by heat, by motion, by precipitation, or sublimation (that is, a calling of the several parts either up or down, which is a kind of attraction;) by adhesion, as when a body more viscous is mingled and agitated with the liquor, which viscous body (afterwards severed) draweth with it the grosser parts of the liquor; and lastly, by percolation or passage.

303. SECONDLY, for the even distribution of the spirits, it is wrought by gentle heat; and by agitation or motion (for of time we speak not, because it is that we would anticipate and represent;) and it is wrought also by mixture of some other body, which hath a virtue to open the liquor, and to make the spirits the better pass through.

304. THIRDLY, for the refining of the spirit, it is wrought likewise by heat; by motion; and by mixture of some body which hath virtue to attenuate. So therefore (having shewn the causes) for the accelerating of clarification in general, and the inducing of it, take these instances and trials.

305. IT is in common practice to draw wine or beer from the lees (which we call racking) whereby it will clarify much the sooner: for the lees, though they keep the drink in heart, and make it lasting; yet withal they cast up some spissitude: and this instance is to be referred to separation.

306. ON the other side it were good to try, what the adding to the liquor more lees than his own will work; for though the lees do make the liquor turbid, yet they refine the spirits. Take therefore a vessel of new beer, and take another vessel of new beer, and rack the one vessel from the lees, and pour the lees of the racked vessel into the unracked vessel, and see the effect: this instance is referred to the refining of the spirits.

307. TAKE new beer, and put in some quantity of stale beer into it, and see whether it will not accelerate the clarification, by opening the body of the beer, and cutting the grosser parts, whereby they may fall down into lees. And this instance again is referred to separation.



308. THE longer malt or herbs, or the like, are infused in liquor, the more thick and troubled the liquor is; but the longer they be decocted in the liquor, the clearer it is. The reason is plain, because in infusion, the longer it is, the greater is the part of the gross body that goeth into the liquor; but in decoction, though more goeth forth, yet it either purgeth at the top, or setteth at the bottom. And therefore the most exact way to clarify, is, first, to infuse, and then to take off the liquor and decoct it; as they do in beer, which hath malt first infused in the liquor, and is afterwards boiled with the hop. This also is referred to separation.

309. TAKE hot embers, and put them about a bottle filled with new beer, almost to the very neck; let the bottle be well stopped, lest it fly out: and continue it, renewing the embers every day, by the space of ten days; and then compare it with another bottle of the same beer set by. Take also lime both quenched and unquenched, and set the bottles in them *ut supra*. This instance is referred both to the even distribution, and also to the refining of the spirits by heat.

310. TAKE bottles, and swing them, or carry them in a wheel-barrow upon rough ground, twice in a day: but then you may not fill the bottles full, but leave some air; for if the liquor come close to the stopple, it cannot play nor flower: and when you have shaken them well either way, pour the drink into another bottle stopped close after the usual manner; for if it stay with much air in it, the drink will pall; neither will it settle so perfectly in all the parts. Let it stand some twenty-four hours: then take it, and put it again into a bottle with air, *ut supra*: and thence into a bottle stopped, *ut supra*: and so repeat the same operation for seven days. Note, that in the emptying of one bottle into another, you must do it swiftly lest the drink pall. It were good also to try it in a bottle with a little air below the neck, without emptying. This instance is referred to the even distribution and refining of the spirits by motion.

311. As for percolation inward and outward (which belongeth to separation) trial would be made of clarifying by adhesion, with milk put into new beer, and stirred with it: for it may be that the grosser part of the beer will cleave to the milk: the doubt is, whether the milk will sever well again; which is soon tried. And it is usual in clarifying hippocras to put in milk; which after severeth and carrieth with it the grosser parts of the hippocras, as hath been said elsewhere. Also for the better clarification by percolation, when they tun new beer, they use to let it pass through a strainer; and it is like the finer the strainer is, the clearer it will be.

*Experiments in consort touching maturation, and the accelerating thereof. And first, touching the maturation and quickning of drinks. And next, touching the maturation of fruits.*

THE accelerating of maturation we will now enquire of. And of maturation itself. It is of three natures. The maturation of fruits: the maturation of drinks: and the maturation of impostumes and ulcers. This last we refer to another place, where we shall handle experiments medicinal. There be also other maturations, as of metals, *etc.* whereof we will speak as occasion serveth. But we will begin with that of drinks, because it hath such affinity with the clarification of liquors.

312. For the maturation of drinks, it is wrought by the congregation of the spirits together, whereby they digest more perfectly the grosser parts: and it is effected partly by the same means that clarification is (whereof we spake before) but then note, that an extreme clarification doth spread the spirits so smooth, as they become dull, and the drink dead, which ought to have a little flowering. And therefore all your clear amber drink is flat.

313. WE see the degrees of maturation of drinks; in muste, in wine, as it is drunk, and in vinegar. Whereof muste hath not the spirits well congregated; wine hath them well united, so as they make the parts somewhat more oily; vinegar hath them congregated, but more jejune, and in smaller quantity, the greatest and finest spirit and part being exhaled: for we see vinegar is made



by setting the vessel of wine against the hot sun; and therefore vinegar will not burn; for that much of the finer parts is exhaled.

314. THE refreshing and quickning of drink palled or dead, is by enforcing the motion of the spirit: so we see that open weather relaxeth the spirit, and maketh it more lively in motion. We see also bottling of beer or ale, while it is new and full of spirit (so that it spiriteth when the stopple is taken forth) maketh the drink more quick and windy. A pan of coals in the cellar doth likewise good, and maketh the drink work again. New drink put to drink that is dead provoketh it to work again: nay, which is more (as some affirm) a brewing of new beer set by old beer, maketh it work again. It were good also to enforce the spirits by some mixtures, that may excite and quicken them; as by putting into the bottles, nitre, chalk, lime, *etc.* We see cream is matured, and made to rise more speedily by putting in cold water; which, as it seemeth, getteth down the whey.

315. IT is tried, that the burying of bottles of drink well stopped, either in dry earth a good depth; or in the bottom of a well within water; and best of all, the hanging of them in a deep well somewhat above the water for some fortnights space, is an excellent means of making drink fresh and quick: for the cold doth not cause any exhaling of the spirits at all, as heat doth, though it rarifieth the rest that remain: but cold maketh the spirits vigorous, and irritate them, whereby they incorporate the parts of the liquor perfectly.

316. As for the maturation of fruits; it is wrought by the calling forth of the spirits of the body outward, and so spreading them more smoothly: and likewise by digesting in some degree the grosser parts: and this is effected by heat, motion, attraction; and by a rudiment of putrefaction: for the inception of putrefaction hath in it a maturation.

317. THERE were taken apples, and laid in straw; in hay; in flour; in chalk; in lime; covered over with onions; covered over with crabs; closed up in wax; shut in a box, *etc.* There was also an apple hanged up in smoak; of all which the experiment sorted in this manner.

318. AFTER a month's space, the apple enclosed in wax was as green and fresh as at the first putting in, and the kernels continued white. The cause is, for that all exclusion of open air (which is ever predatory) maintaineth the body in its first freshness and moisture: but the inconvenience is, that it tasteth a little of the wax; which, I suppose, in a pomegranate, or some such thick-coated fruit, it would not do.

319. THE apple hanged in the smoak, turned like an old mellow apple, wrinkled, dry, soft, sweet, yellow within. The cause is, for that such a degree of heat, which doth neither melt nor scorch (for we see that in a great heat, a roast apple softneth and melteth; and pigs feet, made of quarters of warden, scorch and have a skin of cole) doth mellow, and not adure: the smoak also maketh the apple (as it were) sprinkled with soot, which helpeth to mature. We see that in drying of pears and prunes in the oven, and removing of them often as they begin to sweat, there is a like operation; but that is with a far more intense degree of heat.

320. THE apples covered in the lime and ashes were well matured; as appeared both in their yellowness and sweetness. The cause is, for that that degree of heat which is in lime and ashes (being a smothering heat) is of all the rest most proper, for it doth neither liquify nor arefy; and that is true maturation. Note that the taste of those apples was good; and therefore it is the experiment fitted for use.

321. THE apples covered with crabs and onions were likewise well matured. The cause is, not any heat; but for that the crabs and the onions draw forth the spirits of the apple, and spread them equally throughout the body; which taketh away hardness. So we see one apple ripeneth against another. And therefore in making of cyder, they turn the apples first upon a heap. So one cluster of grapes that toucheth another whilst it groweth, ripeneth faster; *botrus contra botrum citius maturascit.*

322. THE apples in hay and the straw ripened apparently, though not so much as the other; but the apple in the straw more. The cause is, for that the



## CENT. IV. NATURAL HISTORY.

hay and straw have a very low degree of heat, but yet close and smothering, and which drieth not.

323. THE apple in the close box was ripened also: the cause is, for that all air kept close hath a degree of warmth: as we see in wool, furr, plush, *etc.*

Note that all these were compared with another apple of the same kind, that lay of itself: and in comparison of that were more sweet and more yellow, and so appeared to be more ripe.

324. TAKE an apple, or pear, or other like fruit, and roll it upon a table hard: we see in common experience, that the rolling doth soften and sweeten the fruit presently; which is nothing but the smooth distribution of the spirits into the parts: for the unequal distribution of the spirits maketh the harshness: but this hard rolling is between concoction, and a simple maturation; therefore, if you should roll them but gently, perhaps twice a-day; and continue it some seven days, it is like they would mature more finely, and like unto the natural maturation.

325. TAKE an apple, and cut out a piece of the top, and cover it, to see whether that solution of continuity will not hasten a maturation: we see that where a wasp, or a fly, or a worm hath bitten, in a grape, or any fruit, it will sweeten hastily.

326. TAKE an apple, *etc.* and prick it with a pin full of holes, not deep, and smear it a little with sack, or cinnamon water, or spirit of wine, every day for ten days, to see if the virtual heat of the wine or strong waters will not mature it.

In these trials also, as was used in the first, set another of the same fruits by, to compare them; and try them by their yellowness and by their sweetness.

*Experiment solitary touching the making of gold.*

THE world hath been much abused by the opinion of making of gold: the work itself I judge to be possible; but the means (hitherto propounded) to effect it, are, in the practice, full of error and imposture; and in the theory, full of unsound imaginations. For to say, that nature hath an intention to make all metals gold; and that, if she were delivered from impediments, she would perform her own work; and that, if the crudities, impurities, and leproscities of metals were cured, they would become gold; and that a little quantity of the medicine, in the work of projection, will turn a sea of the baser metal into gold by multiplying: all these are but dreams; and so are many other grounds of alchemy. And to help the matter, the alchemists call in likewise many vanities out of astrology, natural magick, superstitious interpretations of Scriptures, auricular traditions, feigned testimonies of ancient authors, and the like. It is true, on the other side, they have brought to light not a few profitable experiments, and thereby made the world some amends. But we, when we shall come to handle the version and transmutation of bodies, and the experiments concerning metals and minerals, will lay open the true ways and passages of nature, which may lead to this great effect. And we commend the wit of the Chinese, who despair of making of gold, but are mad upon the making of silver: for certain it is, that it is more difficult to make gold (which is the most ponderous and materiate amongst metals) of other metals less ponderous and less materiate; than (*via versa*) to make silver of lead or quicksilver; both which are more ponderous than silver; so that they need rather a farther degree of fixation, than any condensation. In the mean time, by occasion of handling the axioms touching maturation, we will direct a trial touching the maturing of metals, and thereby turning some of them into gold: for we conceive indeed, that a perfect good concoction, or digestion, or maturation of some metals, will produce gold. And here we call to mind, that we knew a Dutchman, that had wrought himself into the belief of a great person, by undertaking that he could make gold: whose discourse was, that gold might be made; but that the alchemists over-said the work: for (he said) the making of gold did require a very temperate heat, as being in nature a subterrany work, where little heat cometh; but yet more to the making of gold than of any other metal; and therefore



therefore that he would do it with a great lamp, that should carry a temperate and equal heat: and that it was the work of many months. The device of the lamp was folly; but the over-firing now used, and the equal heat to be required, and the making it a work of some good time, are no ill discourses.

WE resort therefore to our axioms of maturation, in effect touched before. The first is, that there be used a temperate heat; for they are ever temperate heats that digest and mature: wherein we mean temperate according to the nature of the subject; for that may be temperate to fruits and liquors, which will not work at all upon metals. The second is, that the spirits of the metal be quickened, and the tangible parts opened: for without those two operations, the spirit of the metal wrought upon will not be able to digest the parts. The third is that the spirits do spread themselves even, and move not subalternately; for that will make the parts close and pliant. And this requireth a heat that doth not rise and fall, but continue as equal as may be. The fourth is, that no part of the spirit be emitted, but detained: for if there be emission of spirit, the body of the metal will be hard and churlish. And this will be performed, partly by the temper of the fire; and partly by the closeness of the vessel. The fifth is, that there be choice made of the likeliest and best prepared metal for the version: for that will facilitate the work. The sixth is, that you give time enough for the work: not to prolong hopes (as the alchemists do) but indeed to give nature a convenient space to work in. These principles are most certain and true; we will now derive a direction of trial out of them, which may (perhaps) by farther meditation be improved.

327. LET there be a small furnace made of a temperate heat; let the heat be such as may keep the metal perpetually molten, and no more; for that above all importeth to the work. For the material, take silver, which is the metal that in nature symbolizeth most with gold; put in also with the silver, a tenth part of quicksilver, and a twelfth part of nitre, by weight; both these to quicken and open the body of the metal: and so let the work be continued by the space of six months at the least. I wish also, that there be at some times an injection of some oiled substance; such as they use in the recovering of gold which by vexing with separations hath been made churlish: and this is to lay the parts more close and smooth, which is the main work. For gold (as we see) is the closest (and therefore the heaviest) of metals; and is likewise the most flexible and sensible. Note, that to think to make gold of quicksilver, because it is the heaviest, is a thing not to be hoped; for quicksilver will not endure the manage of the fire. Next to silver, I think copper were fittest to be the material.

*Experiment solitary touching the nature of gold.*

328. GOLD hath these natures; greatness of weight; closeness of parts; fixation; plianthness, or softness; immunity from rust; colour or tincture of yellow. Therefore the sure way (though most about) to make gold, is to know the causes of the several natures before rehearsed, and the axioms concerning the same. For if a man can make a metal that hath all these properties, let men dispute whether it be gold or no?

*Experiments in consort touching the inducing and accelerating of putrefaction.*

THE inducing and accelerating of putrefaction, is a subject of a very universal enquiry: for corruption is a reciprocal to generation: and they two are as nature's two terms or boundaries; and the guides to life and death. Putrefaction is the work of the spirits of bodies, which ever are unquiet to get forth and congregate with the air, and to enjoy the sun-beams. The getting forth, or spreading of the spirits (which is a degree of getting forth) hath five differing operations. If the spirits be detained within the body, and move more violently, there followeth colligation, as in metals, *etc.* If more mildly, there followeth digestion, or maturation; as in drinks and fruits. If the spirits be not merely detained, but protrude a little, and that motion be confused and inordinate, there followeth putrefaction; which ever dissolveth the consistence of the body into much inequality; as in flesh, rotten fruits, shining wood, *etc.* and also in the rust of metals.

But



But if that motion be in a certain order, there followeth vivification and figuration; as both in living creatures bred of putrefaction, and in living creatures perfect. But if the spirits issue out of the body, there followeth desiccation, induration, consumption, *etc.* as in brick, evaporation of bodies liquid, *etc.*

329. THE means to induce and accelerate putrefaction, are, first, by adding some crude or watry moisture; as in wetting of any flesh, fruit, wood, with water, *etc.* for contrariwise unctuous and oily substances preserve.

330. THE second is by inviation or excitation; as when a rotten apple lieth close to another apple that is sound: or when dung (which is a substance already putrefied) is added to other bodies. And this is also notably seen in church-yards where they bury much, where the earth will consume the corps in far shorter time than other earth will.

331. THE third is by closeness and stopping, which detaineth the spirits in prison more than they would; and thereby irritateth them to seek issue; as in corn and clothes which wax musty; and therefore open air (which they call *ætherealis*) doth preserve: and this doth appear more evidently in agues, which come (most of them) of obstructions, and penning the humours, which thereupon putrefy.

332. THE fourth is by solution of continuity; as we see an apple will rot sooner if it be cut or pierced; and so will wood, *etc.* And so the flesh of creatures alive, where they have received any wound.

333. THE fifth is either by the exhaling or by the driving back of the principal spirits which preserve the consistence of the body; so that when their government is dissolved, every part returneth to his nature or homogeny. And this appeareth in urine and blood when they cool, and thereby break: it appeareth also in the gangrene, or mortification of flesh, either by opiates or by intense colds. I conceive also the same effect is in pestilences; for that the malignity of the infecting vapour danceth the principal spirits, and maketh them fly and leave their regiment; and then the humours, flesh, and secondary spirits, do dissolve and break, as in an anarchy.

334. THE sixth is when a foreign spirit, stronger and more eager than the spirit of the body, entreth the body; as in the stinging of serpents. And this is the cause (generally) that upon all poisons followeth swelling: and we see swelling followeth also when the spirits of the body itself congregate too much, as upon blows and bruises; or when they are pent in too much, as in swelling upon cold. And we see also, that the spirits coming of putrefaction of humours in agues, *etc.* which may be counted as foreign spirits, though they be bred within the body, do extinguish and suffocate the natural spirits and heat.

335. THE seventh is by such a weak degree of heat, as setteth the spirits in a little motion, but is not able either to digest the parts, or to issue the spirits; as is seen in flesh kept in a room that is not cool: whereas in a cool and wet larder it will keep longer. And we see that vivification (whereof putrefaction is the bastard brother) is effected by such soft heats; as the hatching of eggs, the heat of the womb, *etc.*

336. THE eighth is by the releasing of the spirits, which before were close kept by the solidness of their coverture, and thereby their appetite of issuing checked; as in the artificial rusts induced by strong waters in iron, lead, *etc.* and therefore wetting hasteneth rust or putrefaction of any thing, because it looseneth the crust for the spirits to come forth.

337. THE ninth is by the interchange of heat and cold, or wet and dry; as we see in the mouldering of earth in frosts and sun; and in the more hasty rotting of wood, that is sometimes wet, sometimes dry.

338. THE tenth is by time, and the work and procedure of the spirits themselves, which cannot keep their station; especially if they be left to themselves, and there be not agitation or local motion. As we see in corn not stirred; and mens bodies not exercised.

339. ALL moulds are inceptions of putrefaction; as the moulds of pies and flesh; the moulds of oranges and lemons; which moulds afterwards turn into worms, or more odious putrefactions: and therefore (commonly) prove to be of



ill odour. And if the body be liquid, and not apt to putrefy totally, it will cast up a mother in the top, as the mothers of distilled waters.

340. Moss is a kind of mould of the earth and trees. But it may be better sorted as a rudiment of germination; to which we refer it.

*Experiments in consort touching prohibiting and preventing putrefaction.*

It is an enquiry of excellent use, to enquire of the means of preventing or staying putrefaction; for therein consisteth the means of conservation of bodies: for bodies have two kinds of dissolutions; the one by consumption and desiccation; the other by putrefaction. But as for the putrefactions of the bodies of men and living creatures (as in agues, worms, consumptions of the lungs, impostumes, and ulcers both inwards and outwards) they are a great part of physick and surgery; and therefore we will reserve the enquiry of them to the proper place, where we shall handle medicinal experiments of all sorts. Of the rest we will now enter into an enquiry: wherein much light may be taken from that which hath been said of the means to induce or accelerate putrefactions: for the removing that which caused putrefaction, doth prevent and avoid putrefaction.

341. The first means of prohibiting or checking putrefaction, is cold: for so we see that meat and drink will last longer unputrefied, or unsoured, in winter than in summer: and we see that flowers and fruits, put in conservatories of snow, keep fresh. And this worketh by the detention of the spirits, and consipation of the tangible parts.

342. The second is astringion: for astringion prohibiteth dissolution: as we see (generally) in medicines, whereof such as are astringents do inhibit putrefaction: and by the same reason of astringency, some small quantity of oil of vitriol will keep fresh water long from putrefying. And this astringion is in a substance that hath a virtual cold; and it worketh (partly) by the same means that cold doth.

343. The third is the excluding of the air; and again, the exposing to the air: for these contraries (as it cometh often to pass) work the same effect, according to the nature of the subject matter. So we see, that beer or wine, in bottles close stopp'd, last long; that the garners under ground keep corn longer than those above ground; and that fruit closed in wax keepeth fresh; and likewise bodies put in honey, and flour, keep more fresh: and liquors, drinks, and juices, with a little oil cast on the top, keep fresh. Contrariwise, we see that cloth and apparel not aired, do breed moths and mould; and the diversity is, that in bodies that need detention of spirits, the exclusion of the air doth good; as in drinks and corn: but in bodies that need emission of spirits to discharge some of the superfluous moisture, it doth hurt, for they require airing.

344. The fourth is motion and stirring; for putrefaction asketh rest: for the subtle motion which putrefaction requireth, is disturbed by any agitation; and all local motion keepeth bodies integral, and their parts together; as we see that turning over of corn in a garner, or letting it run like an hour-glass, from an upper room into a lower, doth keep it sweet; and running waters putrefy not: and in mens bodies, exercise hindreth putrefaction; and contrariwise, rest and want of motion, or stoppings (whereby the run of humours, or the motion of perspiration is stayed) further putrefaction; as we partly touched a little before.

345. The fifth is, the breathing forth of the adventitious moisture in bodies; for as wetting doth hasten putrefaction, so convenient drying (whereby the more radical moisture is only kept in) putteth back putrefaction: so we see that herbs and flowers, if they be dried in the shade, or dried in the hot sun for a small time, keep best. For the emission of the loose and adventitious moisture doth betray the radical moisture; and carrieth it out for company.

346. The sixth is the strengthening of the spirits of bodies; for as a great heat keepeth bodies from putrefaction, but a tepid heat inclineth them to putrefaction; so a strong spirit likewise preserveth, and a weak or faint spirit disposeth to corruption. So we find that salt water corrupteth not so soon as fresh: and salting of oysters, and powdering of meat, keepeth them from putrefaction. It would be tried also, whether chalk put into water, or drink, doth not preserve it from putrefying, or speedy souring. So we see that strong beer will last longer than small;



small; and all things that are hot and aromatical, do help to preserve liquors, or powders, *etc.* which they do as well by strengthening the spirits, as by soaking out the loose moisture.

347. THE seventh is separation of the cruder parts, and thereby making the body more equal; for all imperfect mixture is apt to putrefy; and watry substances are more apt to putrefy than oily. So we see distilled waters will last longer than raw waters; and things that have passed the fire, do last longer than those that have not passed the fire; as dried pears, *etc.*

348. THE eighth is the drawing forth continually of that part where the putrefaction beginneth: which is (commonly) the loose and watry moisture; not only for the reason before given, that it provoketh the radical moisture to come forth with it; but because being detained in the body, the putrefaction taking hold of it, infecteth the rest: as we see in the embalming dead bodies; and the same reason is of preserving herbs, or fruits, or flowers, in bran or meal.

349. THE ninth is the commixture of any thing that is more oily or sweet: for such bodies are least apt to putrefy, the air working little upon them; and they not putrefying, preserve the rest. And therefore we see syrups and ointments will last longer than juices.

350. THE tenth is the commixture of somewhat that is dry; for putrefaction beginneth first from the spirits; and then from the moisture: and that that is dry is unapt to putrefy: and therefore smok preserveth flesh; as we see in bacon and neats tongues, and Martenas beef, *etc.*

351. THE opinion of some of the ancients, that blown airs do preserve bodies longer than other airs, seemeth to me probable; for that the blown airs, being overcharged and compressed, will hardly receive the exhaling of any thing, but rather repulse it. It was tried in a blown bladder, whereinto flesh was put, and likewise a flower, and it sorted not: for dry bladders will not blow; and new bladders rather further putrefaction: the way were therefore to blow strongly with a pair of bellows into a hog's head, putting into the hog's head (before) that which you would have preserved; and in the instant that you withdraw the bellows, stop the hole close.

*Experiment solitary touching wood shining in the dark.*

352. THE experiment of wood that shineth in the dark, we have diligently driven and pursued: the rather, for that of all things that give light here below, it is the most durable, and hath least apparent motion. Fire and flame are in continual expence; sugar shineth only while it is in scraping; and salt-water while it is in dashing; glow-worms have their shining while they live, or a little after; only scales of fishes (putrefied) seem to be of the same nature with shining wood: and it is true, that all putrefaction hath with it an inward motion, as well as fire or light. The trial sorted thus: 1. The shining is in some pieces more bright, in some more dim; but the most bright of all doth not attain to the light of a glow-worm. 2. The woods that have been tried to shine, are chiefly fallow and willow; also the ash and hazle; it may be it holdeth in others. 3. Both roots and bodies do shine, but the roots better. 4. The colour of the shining part, by day-light, is in some pieces white, in some pieces inclining to red; which in the country they call the white and red garret. 5. The part that shineth, is (for the most part) somewhat soft, and moist to feel to; but some was found to be firm and hard; so as it might be figured into a cross, or into beads, *etc.* But you must not look to have an image, or the like, in any thing that is lightsome; for even a face in iron red-hot will not be seen, the light confounding the small differences of lightsome and darksome, which shew the figure. 6. There was the shining part pared off, till you came to that that did not shine; but within two days the part contiguous began also to shine, being laid abroad in the dew; so as it seemeth the putrefaction spreadeth. 7. There was other dead wood of like kind, that was laid abroad, which shined not at the first; but after a night's lying abroad began to shine. 8. There was other wood that did first shine; and being laid dry in the house, within five or six days lost the shining; and laid abroad again, recover'd the shining.



ing. 9. Shining woods being laid in a dry room, within a seven-night lost their shining; but being laid in a cellar, or dark room, kept the shining. 10. The boring of holes in that kind of wood, and then laying it abroad, seemeth to conduce to make it shine: the cause is, for that all solution of continuity doth help on putrefaction, as was touched before. 11. No wood hath been yet tried to shine, that was cut down alive, but such as was rotted both in stock and root while it grew. 12. Part of the wood that shined was steeped in oil, and retained the shining a fortnight. 13. The like succeeded in some steeped in water, and much better. 14. How long the shining will continue, if the wood be laid abroad every night, and taken in and sprinkled with water in the day, is not yet tried. 15. Trial was made of laying it abroad in frosty weather, which hurt it not. 16. There was a great piece of a root which did shine, and the shining part was cut off till no more shined; yet after two nights, though it were kept in a dry room, it got a shining.

*Experiment solitary touching the acceleration of birth.*

353. THE bringing forth of living creatures may be accelerated in two respects: the one, if the embryo ripeneth and perfecteth sooner: the other, if there be some cause from the mother's body, of expulsion or putting it down: whereof the former is good, and argueth strength; the latter is ill, and cometh by accident or disease. And therefore the ancient observation is true, that the child born in the seventh month doth commonly well; but born in the eighth month, doth (for the most part) die. But the cause assigned is fabulous; which is, that in the eighth month should be the return of the reign of the planet Saturn, which (as they say) is a planet malign; whereas in the seventh is the reign of the moon, which is a planet propitious. But the true cause is, for that where there is so great a prevention of the ordinary time, it is the lustiness of the child; but when it is less, it is some indisposition of the mother.

*Experiment solitary touching the acceleration of growth and stature.*

354. TO accelerate growth or stature, it must proceed either from the plenty of the nourishment; or from the nature of the nourishment; or from the quickening and exciting of the natural heat. For the first, excels of nourishment is hurtful; for it maketh the child corpulent; and growing in breadth rather than in height. And you may take an experiment from plants, which, if they spread much, are seldom tall. As for the nature of the nourishment; first, it may not be too dry, and therefore children in dairy countries do wax more tall, than where they feed more upon bread and flesh. There is also a received tale; that boiling of dairy roots in milk (which it is certain are great driers) will make dogs little. But so much is true, that an over-dry nourishment in childhood putteth back stature. Secondly, the nourishment must be of an opening nature; for that attenuateth the juice, and furthereth the motion of the spirits upwards. Neither is it without cause, that Xenophon, in the nurture of the Persian children, doth so much commend their feeding upon cardamon; which (he saith) made them grow better, and be of a more active habit. Cardamon is in latin *nassurtium*; and with us water-cresses; which, it is certain, is an herb, that whilst it is young, is friendly to life. As for the quickening of natural heat, it must be done chiefly with exercise; and therefore (no doubt) much going to school, where they sit so much, hindreth the growth of children; whereas country-people that go not to school, are commonly of better stature. And again men must beware how they give children any thing that is cold in operation; for even long sucking doth hinder both wit and stature. This hath been tried, that a whelp that hath been fed with nitre in milk, hath become very little, but extreme lively: for the spirit of nitre is cold. And though it be an excellent medicine in strength of years for prolongation of life; yet it is in children and young creatures an enemy to growth: and all for the same reason; for heat is requisite to growth; but after a man is come to his middle age, heat consumeth the spirits; which the coldness of the spirit of nitre doth help to condense and correct.

*Experi-*



*Experiments in consort touching sulphur and mercury, two of Paracelsus's principles.*

THERE be two great families of things; you may term them by several names; sulphureous and mercurial, which are the chemists words (for as for their *sal*, which is their third principle, it is a compound of the other two;) inflammable and not inflammable; mature and crude; oily and watry. For we see that in subterraneis there are, as the fathers of their tribes, brimstone and mercury: in vegetables and living creatures there is water and oil: in the inferior order of pneumatics there is air and flame; and in the superior, there is the body of the star and the pure sky. And these pairs, though they be unlike in the primitive differences of matter, yet they seem to have many consents: for mercury and sulphur are principal materials of metals; water and oil are principal materials of vegetables and animals; and seem to differ but in maturation or concoction: flame (in vulgar opinion) is but air incensed; and they both have quickness of motion, and facility of cession, much alike: and the interstellar sky (though the opinion be vain, that the star is the denser part of his orb) hath notwithstanding so much affinity with the star, that there is a rotation of that, as well as of the star. Therefore it is one of the greatest *magnalia naturae*, to turn water or watry juice into oil or oily juice: greater in nature, than to turn silver or quicksilver into gold.

355. The instances we have wherein crude and watry substance turneth into fat and oily, are of four kinds. First in the mixture of earth and water; which mingled by the help of the sun gather a nitrous fatness, more than either of them have severally; as we see in that they put forth plants, which need both juices.

356. The second is in the assimilation of nourishment, made in the bodies of plants and living creatures; whereof plants turn the juice of mere water and earth into a great deal of oily matter: living creatures, though much of their fat and flesh are out of oily aliments (as meat and bread) yet they assimilate also in a measure their drink of water, *etc.* But these two ways of version of water into oil, (namely, by mixture and by assimilation) are by many passages and percolations, and by long continuance of soft heats, and by circuits of time.

357. The third is in the inception of putrefaction; as in water corrupted; and the mothers of waters distilled; both which have a kind of fatness, or oil.

358. The fourth is in the dulcoration of some metals; as *saccharum Saturni*, *etc.*

359. The intention of version of water into a more oily substance is by digestion; for oil is almost nothing else but water digested; and this digestion is principally by heat; which heat must be either outward or inward: again, it may be by provocation or excitation; which is caused by the mingling of bodies already oily or digested; for they will somewhat communicate their nature with the rest. Digestion also is strongly effected by direct assimilation of bodies crude into bodies digested; as in plants and living creatures, whose nourishment is far more crude than their bodies: but this digestion is by a great compass, as hath been said. As for the more full handling of these two principles, wherof this is but a taste (the enquiry of which is one of the profoundest enquiries of nature) we leave it to the title of version of bodies; and likewise to the title of the first congregations of matter; which, like a general assembly of estates, doth give law to all bodies.

*Experiment solitary touching chameleons.*

360. A chameleon is a creature about the bigness of an ordinary lizard: his head unproportionably big: his eyes great: he moveth his head without the writhing of his neck (which is inflexible) as a hog doth: his back crooked; his skin spotted with little tumours, less eminent nearer the belly; his tail slender and long: on each foot he hath five fingers; three on the outside, and two on the inside; his tongue of a marvellous length in respect of his body, and hollow at the end; which he will launch out to prey upon flies. Of colour green, and of a dusky yellow, brighter and whiter towards the belly; yet spotted with



blue, white, and red. If he be laid upon green, the green predominateth; if upon yellow, the yellow; not so if he be laid upon blue, or red, or white; only the green spots receive a more orient lustre; laid upon black, he looketh all black, though not without a mixture of green. He feedeth not only upon air (though that be his principal sustenance) for sometimes he taketh flies, as was said; yet some that have kept chameleons a whole year together, could never perceive that ever they fed upon any thing else but air; and might observe their bellies to swell after they had exhausted the air, and closed their jaws; which they open commonly against the rays of the sun. They have a foolish tradition in magick, that if a chameleon be burnt upon the top of an house, it will raise a tempest; supposing (according to their vain dreams of sympathies) because he nourisheth with air, his body should have great virtue to make impression upon the air.

*Experiment solitary touching subterrany fires.*

361. It is reported by one of the ancients, that in part of Media, there are eruptions of flames out of plains; and that those flames are clear, and cast not forth such smoak, and ashes, and pumice, as mountain flames do. The reason (no doubt) is, because the flame is not pent as it is in mountains and earthquakes which cast flame. There be also some blind fires under stone, which flame not out, but oil being poured upon them they flame out. The cause whereof is, for that it seemeth the fire is so choaked, as not able to remove the stone, it is heat rather than flame; which nevertheless is sufficient to inflame the oil.

*Experiment solitary touching nitre.*

362. It is reported, that in some lakes the water is so nitrous, as if foul clothes be put into it, it scoureth them of itself; and if they stay any while long, they moulder away. And the scouring virtue of nitre is the more to be noted, because it is a body cold; and we see warm water scoureth better than cold. But the cause is, for that it hath a subtle spirit, which severeth and divideth any thing that is foul and viscous, and sticketh upon a body.

*Experiment solitary touching congeling of air.*

363. TAKE a bladder, the greatest you can get; fill it full of wind, and tie it about the neck with a silk thread waxed; and upon that put likewise wax very close; so that when the neck of the bladder drieth, no air may possibly get in nor out. Then bury it three or four foot under the earth in a vault, or in a conservatory of snow, the snow being made hollow about the bladder; and after some fortnight's distance, see whether the bladder be shrunk; for if it be, then it is plain that the coldness of the earth or snow hath condensed the air, and brought it a degree nearer to water: which is an experiment of great consequence.

*Experiment solitary touching congeling of water into crystal.*

364. It is a report of some good credit, that in deep caves there are pensile crystal, and degrees of crystal that drop from above; and in some other (though more rarely) that rise from below: Which though it be chiefly the work of cold, yet it may be that water that passeth through the earth, gathereth a nature more clammy, and fitter to congeal, and become solid, than water of itself. Therefore trial would be made, to lay a heap of earth, in great frosts, upon a hollow vessel, putting a canvas between, that it falleth not in: and pour water upon it, in such quantity as will be sure to soak through; and see whether it will not make an harder ice in the bottom of the vessel, and less apt to dissolve than ordinarily. I suppose also, that if you make the earth narrower at the bottom than at the top, in fashion of a sugar-loaf reversed, it will help the experiment. For it will make the ice, where it issueth, less in bulk; and evermore smallness of quantity is a help to version.



*Experiment solitary touching preserving of rose-leaves both in colour and smell.*

365. TAKE damask roses, and pull them; then dry them upon the top of an house, upon a lead or terras, in the hot sun, in a clear day, between the hours (only) of twelve and two, or thereabouts. Then put them into a sweet dry earthen bottle, or a glass, with narrow mouths, stuffing them close together, but without bruising: stop the bottle or glass close, and these roses will retain not only their smell perfect, but their colour fresh, for a year at least. Note, that nothing doth so much destroy any plant, or other body, either by putrefaction or aëfaction, as the adventitious moisture which hangeth loose in the body, if it be not drawn out. For it betrayeth and tolleth forth the innate and radical moisture along with it when itself goeth forth. And therefore in living creatures, moderate sweat doth preserve the juice of the body. Note, that these roses, when you take them from the drying, have little or no smell; so that the smell is a second smell, that issueth out of the flower afterwards.

*Experiments in consort touching the continuance of flame.*

366. THE continuance of flame, according unto the diversity of the body inflamed, and other circumstances, is worthy the enquiry; chiefly, for that though flame be (almost) of a momentary lasting, yet it receiveth the more, and the less: we will first therefore speak (at large) of bodies inflamed wholly and immediately, without any wick to help the inflammation. A spoonful of spirit of wine, a little heated, was taken, and it burnt as long as came to a hundred and sixteen pulses. The same quantity of spirit of wine, mixed with the sixth part of a spoonful of nitre, burnt but to the space of ninety four pulses. Mixed with the like quantity of bay-salt, eighty three pulses. Mixed with the like quantity of gunpowder, which dissolved into a black water, one hundred and ten pulses. A cube or pellet of yellow wax was taken, as much as half the spirit of wine, and set in the midst, and it burnt only to the space of eighty seven pulses. Mixed with the sixth part of a spoonful of milk, it burnt to the space of one hundred pulses; and the milk was curdled. Mixed with the sixth part of a spoonful of water, it burnt to the space of eighty six pulses; with an equal quantity of water, only to the space of four pulses. A small pebble was laid in the midst, and the spirit of wine burnt to the space of ninety four pulses. A piece of wood of the bigness of an arrow, and about a finger's length, was set up in the midst, and the spirit of wine burnt to the space of ninety four pulses. So that the spirit of wine simple endured the longest; and the spirit of wine with the bay-salt, and the equal quantity of water, were the shortest.

367. CONSIDER well, whether the more speedy going forth of the flame be caused by the greater vigour of the flame in burning; or by the resistance of the body mixed, and the aversion thereof to take flame: which will appear by the quantity of the spirit of wine that remaineth after the going out of the flame. And it seemeth clearly to be the latter; for that the mixture of things least apt to burn, is the speediest in going out. And note, by the way, that spirit of wine burned, till it go out of itself, will burn no more; and tasteth nothing so hot in the mouth as it did; no, nor yet sour (as if it were a degree towards vinegar) which burnt wine doth; but flat and dead.

368. NOTE, that in the experiment of wax aforesaid, the wax dissolved in the burning, and yet did not incorporate itself with the spirit of wine, to produce one flame; but wheresoever the wax floated, the flame forsook it, till at last it spread all over, and put the flame quite out.

369. THE experiments of the mixtures of the spirit of wine inflamed, are things of discovery, and not of use: but now we will speak of the continuance of flames, such as are used for candles, lamps, or tapers; consisting of inflammable matters, and of a wick that provoketh inflammation. And this importeth not only discovery, but also use and profit; for it is a great saving in all such lights, if they can be made as fair and bright as others, and yet last longer. Wax pure made into a candle, and wax mixed severally into candle-stuff, with



the particulars that follow; *viz.* water, *agua vitae*, milk, bay-salt, oil, butter, nitre, brimstone, saw-dust (every of these bearing a sixth part to the wax; and every of these candles mixed, being of the same weight and wick with the wax pure) proved thus in the burning and lasting. The swiftest in consuming was that with saw-dust; which first burned fair till some part of the candle was consumed, and the dust gathered about the snaffe; but then it made the snaffe big and long, and to burn dusklily, and the candle wasted in half the time of the wax pure. The next in swiftness were the oil and butter, which consumed by a fifth part swifter than the pure wax. Then followed in swiftness the clear wax itself. Then the bay-salt, which lasted about an eighth part longer than the clear wax. Then followed the *agua vitae*, which lasted about a fifth part longer than the clear wax. Then followed the milk, and water, with little difference from the *agua vitae*, but the water slowest. And in these four last, the wick would spit forth little sparks. For the nitre, it would not hold lighted above some twelve pulses: but all the while it would spit out portions of flame, which afterwards would go out into a vapour. For the brimstone, it would hold lighted much about the same time with the nitre; but then after a little while it would harden and cake about the snaffe; so that the mixture of bay-salt with wax will win an eighth part of the time of lasting, and the water a fifth.

370. AFTER the several materials were tried, trial was likewise made of several wicks; as of ordinary cotton, sowing thread, rush, silk, straw, and wood. The silk, straw, and wood, would flame a little, till they came to the wax, and then go out: of the other three, the thread consumed faster than the cotton, by a sixth part of time: the cotton next: then the rush consumed slower than the cotton, by at least a third part of time. For the bigness of the flame, the cotton and thread cast a flame much alike; and the rush much less and dimmer. *Quære*, Whether wood and wicks both, as in torches, consume faster than the wicks simple?

371. WE have spoken of the several materials, and the several wicks: but to the lasting of the flame it importeth also, not only what the material is, but in the same material whether it be hard, soft, old, new, *etc.* Good housewives, to make their candles burn the longer, use to lay them (one by one) in bran or flour, which make them harder, and so they consume the slower: in so much as by this means they will outlast other candles of the same stuff almost half in half. For bran and flour have a virtue to harden; so that both age, and lying in the bran, doth help to the lasting. And we see that wax candles last longer than tallow candles, because wax is more firm and hard.

372. THE lasting of flame also dependeth upon the easy drawing of the nourishment, as we see in the Court of England, there is a service which they call All-night; which is (as it were) a great cake of wax, with the wick in the midst, whereby it cometh to pass, that the wick fetcheth the nourishment farther off. We see also that lamps last longer, because the vessel is far broader than the breadth of a taper or candle.

373. TAKE a turreted lamp of tin, made in the form of a square; the height of the turret being thrice as much as the length of the lower part whereupon the lamp standeth: make only one hole in it, at the end of the turret farthest from the turret. Reverse it, and fill it full of oil by that hole; and then set it upright again; and put a wick in at the hole, and lighten it: you shall find that it will burn slow, and a long time: which is caused (as was said last before) for that the flame fetcheth the nourishment afar off. You shall find also, that as the oil wasteth and descendeth, so the top of the turret by little and little filleth with air; which is caused by the rarefaction of the oil by the heat. It were worthy the observation, to make a hole in the top of the turret, and to try when the oil is almost consumed, whether the air made of the oil, if you put to it a flame of a candle, in the letting of it forth, will enflame. It were good also to have the lamp made, not of tin, but of glass, that you may see how the vapour, or air, gathereth by degrees, in the top.

374. A FOURTH point that importeth the lasting of the flame, is the closeness of the air wherein the flame burneth. We see, that if wind bloweth upon  
a candle,



a candle, it wasteth apace. We see also, it lasteth longer in a lanthorn than at large. And there are traditions of lamps and candles, that have burnt a very long time in caves and tombs.

375. A FIRST point that importeth the lasting of the flame, is the nature of the air where the flame burneth; whether it be hot or cold, moist or dry. The air, if it be very cold, irritateth the flame, and maketh it burn more fiercely (as fire scorseth in frosty weather) and so furthereth the consumption. The air once heated (I conceive) maketh the flame burn more mildly, and so helpeth the continuance. The air, if it be dry, is indifferent: the air, if it be moist, doth in a degree quench the flame (as we see lights will go out in the dampness of mines) and howsoever maketh it burn more dully, and so helpeth the continuance.

*Experiments in consort touching burials or infusions of divers bodies in earth.*

376. BURIALS in earth serve for preservation; and for condensation; and for induration of bodies. And if you intend condensation or induration, you may bury the bodies so as earth may touch them: as if you will make artificial porcellane, *etc.* And the like you may do for conservation, if the bodies be hard and solid; as clay, wood, *etc.* But if you intend preservation of bodies more soft and tender, then you must do one of these two: either you must put them in cases, whereby they may not touch the earth; or else you must vault the earth, whereby it may hang over them, and not touch them: for if the earth touch them, it will do more hurt by the moisture, causing them to putrefy, than good by the virtual cold, to conserve them; except the earth be very dry and sandy.

377. AN orange, lemon, and apple, wrapt in a linnen cloth, being buried for a fortnight's space four feet deep within the earth, though it were in a moist place, and a rainy time, yet came forth no ways mouldy or rotten, but were become a little harder than they were; otherwise fresh in their colour; but their juice somewhat flatted. But with the burial of a fortnight more they became putrefied.

378. A BOTTLE of beer, buried in like manner as before, became more lively, better tasted, and clearer than it was. And a bottle of wine in like manner. A bottle of vinegar so buried came forth more lively and more odorous, smelling almost like a violet. And after the whole month's burial, all the three came forth as fresh and lively, if not better, than before.

379. IT were a profitable experiment, to preserve oranges, lemons, and pomegranates, till summer; for then their price will be mightily increased. This may be done, if you put them in a pot or vessel well covered, that the moisture of the earth come not at them; or else by putting them in a conservatory of snow. And generally, whosoever will make experiments of cold, let him be provided of three things; a conservatory of snow; a good large vault, twenty feet at least under the ground; and a deep well.

380. THERE hath been a tradition, that pearl, and coral, and turehois-stone, that have lost their colours, may be recovered by burying in the earth: which is a thing of great profit, if it would sort: but upon trial of six weeks burial, there followed no effect. It were good to try it in a deep well, or in a conservatory of snow, where the cold may be more constringent; and so make the body more united, and thereby more resplendent.

*Experiment solitary touching the effects in mens bodies from several winds.*

381. MENS bodies are heavier, and less disposed to motion, when southern winds blow, than when northern. The cause is, for that when the southern winds blow, the humours do (in some degree) melt and wax fluid, and so flow into the parts; as it is seen in wood and other bodies, which, when the southern winds blow, do swell. Besides, the motion and activity of the body consisteth chiefly in the sinews, which, when the southern wind bloweth, are more relax,



*Experiment solitary touching winter and summer sicknesses.*

382. It is commonly seen, that more are sick in the summer, and more die in the winter; except it be in pestilent diseases, which commonly reign in summer or autumn. The reason is, because diseases are bred (indeed) chiefly by heat; but then they are cured most by sweat and purge; which in the summer cometh on or is provoked more easily. As for pestilent diseases, the reason why most die of them in summer, is, because they are bred most in the summer; for otherwise, those that are touched are in most danger in the winter.

*Experiment solitary touching pestilential seasons.*

383. The general opinion is, that years hot and moist are most pestilential; upon the superficial ground, that heat and moisture cause putrefaction. In England it is not found true; for many times there have been great plagues in dry years. Whereof the cause may be, for that drought in the bodies of islanders habituate to moist airs, doth exasperate the humours, and maketh them more apt to putrefy or inflame: besides, it tainteth the waters (commonly) and maketh them less wholesome. And again in Barbary, the plagues break up in the summer months, when the weather is hot and dry.

*Experiment solitary touching an error received about epidemical diseases.*

384. Many diseases (both epidemical and others) break forth at particular times. And the cause is falsely imputed to the constitution of the air at that time when they break forth or reign; whereas it proceedeth (indeed) from a precedent sequence and series of the seasons of the year: and therefore Hippocrates in his prognosticks doth make good observations of the diseases that ensue upon the nature of the precedent four seasons of the year.

*Experiment solitary touching the alteration or preservation of liquors in wells or deep vaults.*

385. TRIAL hath been made with earthen bottles well stopp'd, hang'd in a well of twenty fathom deep at the least; and some of the bottles have been let down into the water, some others have hang'd above, within about a fathom for drinking) and wine, and milk. The proof hath been, that both the beer and the wine (as well within water, as above) have not been pall'd or dead'd at all; but as good, or somewhat better, than bottles of the same drinks and staleness kept in a cellar. But those which did hang above water were apparently the best; and that beer did flower a little; whereas that under water did not, though it were fresh. The milk soured and began to putrefy. Nevertheless it is true, that there is a village near Blois, where in deep caves they do of this trial of hanging milk in the well: but our proof was naught; neither do I know, whether that milk in those caves be first boiled. It were good therefore to try it with milk sodden, and with cream; for that milk of itself is such a compound body, of cream, curds, and whey, as it is easily turned and dissolved. It were good also to try the beer when it is in wort, that it may be seen whether the hanging in the well will accelerate the ripening and clarifying of it.

*Experiment solitary touching flutting.*

386. DIVERS, we see, do flut. The cause may be (in most) the refrigeration of the tongue; whereby it is less apt to move. And therefore we see that naturals do generally flut: and we see that in those that flut, if they drink wine moderately, they flut less, because it heateth: and so we see, that they that flut, do flut more in the first offer to speak, than in continuance; because the tongue dryness of the tongue; which likewise maketh it less apt to move as well as cold: for it is an affect that cometh to some wise and great men; as it did unto Moses, who was *linguae praepeditae*; and many flutters (we find) are very choleric men; choler inducing a dryness in the tongue.



*Experiments in consort touching smells.*

387. SMELLS and other odours are sweeter in the air at some distance, than near the nose; as hath been partly touched heretofore. The cause is double: first, the finer mixture, or incorporation of the smell: for we see that in sounds likewise, they are sweetest when we cannot hear every part by itself. The other reason is, for that all sweet smells have joined with them some earthy or crude odours; and at some distance the sweet, which is the more spiritual, is perceived, and the earthy reacheth not so far.

388. SWEET smells are most forcible in dry substances when they are broken; and so likewise in oranges or lemons, the nipping of their rind giveth out their smell more: and generally when bodies are moved or stirred, though not broken, they smell more; as a sweet-bag waved. The cause is double: the one, for that there is a greater emission of the spirit when way is made; and this holdeth in the breaking, nipping, or crushing; it holdeth also (in some degree) in the moving: but in this last there is a concurrence of the second cause; which is the impulsion of the air, that bringeth the scent faster upon us.

389. THE daintiest smells of flowers are out of those plants whose leaves smell not; as violets, roses, wall-flowers, gilly-flowers, pinks, woodbines, vine-flowers, apple-blooms, limetree-blooms, bean-blooms, *etc.* The cause is, for that where there is heat and strength enough in the plant to make the leaves odorate, there the smell of the flower is rather evanid and weaker, than that of the leaves; as it is in rosemary flowers, lavender flowers, and sweet-briar roses. But where there is less heat, there the spirit of the plant is digested and refined, and severed from the grosser juice, in the efflorescence, and not before.

390. MOST odours smell best broken or crushed, as hath been said; but flowers pressed or beaten do lose the freshness and sweetness of their odour. The cause is, for that when they are crushed, the grosser and more earthy spirit cometh out with the finer, and troubleth it; whereas in stronger odours there are no such degrees of the issue of the smell.

*Experiments in consort touching the goodness and choice of water.*

391. IT is a thing of very good use to discover the goodness of waters. The taste, to those that drink water only, doth somewhat: but other experiments are more sure. First, try waters by weight; wherein you may find some difference, though not much: and the lighter you may account the better.

392. SECONDLY, try them by boiling upon an equal fire: and that which consumeth away fastest, you may account the best.

393. THIRDLY, try them in several bottles, or open vessels, matches in every thing else, and see which of them last longest without stench or corruption. And that which holdeth unputrefied longest, you may likewise account the best.

394. FOURTHLY, try them by making drinks stronger or smaller, with the same quantity of malt; and you may conclude, that that water which maketh the stronger drink, is the more concocted and nourishing; though perhaps it be not so good for medicinal use. And such water (commonly) is the water of large and navigable rivers; and likewise in large and clean ponds of standing water: for upon both them the sun hath more power than upon fountains or small rivers. And I conceive that chalk-water is next them the best for going farthest in drink: for that also helpeth concoction; so it be out of a deep well; for then it cureth the rawness of the water; but chalky water, towards the top of the earth, is too fretting; as it appeareth in laundry of clothes, which wear out apace if you use such waters.

395. FIRSTLY, the housewives do find a difference in waters, for the bearing or not bearing of soap: and it is likely that the more fat water will bear soap best; for the hungry water doth kill the unctuous nature of the soap.

396. SIXTHLY, you may make a judgment of waters according to the place whence they spring or come: the rain water is, by the physicians, esteemed the finest and the best; but yet it is said to putrefy soonest; which is likely, because of the fineness of the spirit: and in conservatories of rain-water (such as they have



have in Venice, *etc.*) they are found not so choice waters; the worse (perhaps) because they are covered aloft, and kept from the sun. Snow-water is held unwholesome; inasmuch as the people that dwell at the foot of the snow mountains, or otherwise upon the ascent (especially the women) by drinking of snow-water, have great bags hanging under their throats. Well-water, except it be upon chalk, or a very plentiful spring, maketh meat red; which is an ill sign. Springs on the tops of high hills are the best: for both they seem to have a lightness and appetite of mounting; and besides, they are most pure and unmixed; and again, are more percolated through a great space of earth. For waters in valleys join in effect under ground with all waters of the same level; whereas springs on the tops of hills pass through a great deal of pure earth, with less mixture of other waters.

397. SEVENTHLY, judgment may be made of waters by the soil whereupon the water runneth; as pebble is the cleanest and best tasted; and next to that, clay-water; and thirdly, water upon chalk; fourthly, that upon sand; and worst of all upon mud. Neither may you trust waters that taste sweet; for they are commonly found in rising grounds of great cities; which must needs take in a great deal of filth.

*Experiment solitary touching the temperate heat under the equinoctial.*

398. IN Peru, and divers parts of the West-Indies, though under the line, the heats are not so intolerable as they be in Barbary, and the skirts of the torrid zone. The causes are, first the great breezes which the motion of the air in great circles (such as are under the girdle of the world) produceth; which do refrigerate; and therefore in those parts noon is nothing so hot, when the breezes are great, as about nine or ten of the clock in the forenoon. Another cause is, for that the length of the night, and the dews thereof, do compensate the heat of the day. A third cause is the stay of the sun; not in respect of day and night (for that we spake of before) but in respect of the season; for under the line the sun crosseth the line, and maketh two summers and two winters, but in the skirts of the torrid zone it doubleth and goeth back again, and so maketh one long summer.

*Experiment solitary touching the coloration of black and tawny Moors.*

399. THE heat of the sun maketh men black in some countries, as in Æthiopia and Guiney, *etc.* Fire doth it not, as we see in glass-men, that are continually about the fire. The reason may be, because fire doth lick up the spirits and blood of the body, so as they exhale; so that it ever maketh men look pale and fallow; but the sun, which is a gentler heat, doth but draw the blood to the outward parts; and rather concocteth it than soaketh it; and therefore we see that all Æthiopes are fleshy and plump, and have great lips; all which betoken moisture retained, and not drawn out. We see also, that the Negroes are bred in countries that have plenty of water, by rivers, or otherwise: for Meroë, which was the metropolis of Æthiopia, was upon a great lake; and Congo, where the Negroes are, is full of rivers. And the confines of the river Niger, where the Negroes also are, are well watered: and the region above Cape Verde is likewise moist, inasmuch as it is pestilent through moisture: but the countries of the Abyssenes, and Barbary, and Peru, where they are tawny, and olivaster, and pale, are generally more sandy and dry. As for the Æthiopes, as they are plump and fleshy, so (it may be) they are sanguine and ruddy coloured, if their black skin would suffer it to be seen.

*Experiment solitary touching motion after the instant of death.*

400. SOME creatures do move a good while after their head is off; as birds: some a very little time; as men and all beasts: some move, though cut in several pieces; as snakes, eels, worms, flies, *etc.* First therefore it is certain, that the immediate cause of death is the resolution or extinguishment of the spirits; and that the destruction or corruption of the organs is but the mediate cause. But some organs are so peremptorily necessary, that the extinguishment of the spirits doth speedily follow; but yet so as there is an interim of a small time. It is re-

ported



CENT. IV. NATURAL HISTORY.

ported by one of the ancients, of credit, that a sacrificed beaft hath lowed after the heart hath been severed; and it is a report also of credit, that the head of a pig hath been opened, and the brain put into the palm of a man's hand, trembling, without breaking any part of it, or severing it from the marrow of the back-bone; during which time the pig hath been, in all appearance, stark dead, and without motion; and after a small time the brain hath been replaced, and the skull of the pig closed, and the pig hath a little after gone about. And certain it is, that an eye upon revenge hath been thrust forth, so as it hang'd a pretty distance by the visual nerve; and during that time the eye hath been without any power of sight; and yet after (being replaced) recovered sight. Now the spirits are chiefly in the head and cells of the brain, which in men and beasts are large; and therefore, when the head is off, they move little or nothing. But birds have small heads, and therefore the spirits are a little more dispersed in the sinews, whereby motion remaineth in them a little longer; insomuch as it is extant in story, that an emperor of Rome, to shew the certainty of his hand, did shoot a great forked arrow at an ostrich, as she ran swiftly upon the stage, and struck off her head; and yet she continued the race a little way with the head off. As for worms, and flies, and eels, the spirits are diffused almost all over; and therefore they move in their several pieces.



## NATURAL HISTORY.

## CENTURY V.

*Experiments in consort touching the acceleration of germination.*

**W**E will now enquire of plants or vegetables: and we shall do it with diligence. They are the principal part of the third day's work. They are the first *Produce*, which is the word of animation: for the other words are but the words of essence. And they are of excellent and general use for food, medicine, and a number of mechanical arts.

401. **T**HERE were sown in a bed, turnip-seed, radish-seed, wheat, cucumber-seed, and pease. The bed we call a hot bed, and the manner of it is this: there was taken horse dung, old and well rotted; this was laid upon a bank half a foot high, and supported round about with planks; and upon the top was cast sifted earth, some two fingers deep; and then the seed sprinkled upon it, having been steeped all night in water mixed with cow dung. The turnip-seed and the wheat came up half an inch above ground within two days after, without any watering. The rest the third day. The experiment was made in October; and (it may be) in the spring, the accelerating would have been the speedier. This is a noble experiment; for without this help they would have been four times as long in coming up. But there doth not occur to me, at this present, any use thereof for profit; except it should be for sowing of pease, which have their price very much increased by the early coming. It may be tried also with cherries, strawberries, and other fruit, which are dearest when they come early.

402. **T**HERE was wheat steeped in water mixed with cow dung; other in water mixed with horse dung; other in water mixed with pigeon dung; other in urine of man; other in water mixed with chalk powdered; other in water mixed with foot; other in water mixed with ashes; other in water mixed with bay-salt; other in claret wine; other in malmsey; other in spirit of wine. The proportion of the mixture was, a fourth part of the ingredients to the water; save that there was not of the salt above an eighth part. The urine, and wines, and spirit of wine, were simple without mixture of water. The time of the steeping was twelve hours. The time of the year October. There was also other wheat sown unsteeped, but watered twice a day with warm water. There was also other wheat sown simple, to compare it with the rest. The event was; that those that were in the mixture of dung, and urine, and foot, chalk, ashes, and salt, came up within six days: and those that afterwards proved the highest, thickest, and most lussy, were first the urine; and then the dungs; next the chalk; next the foot; next the ashes; next the salt; next the wheat simple of itself, unsteeped and unwatered; next the watered twice a day with warm water; next the claret wine. So that these three last were slower than the ordinary wheat of itself; and this culture did rather retard than advance. As for those that were steeped in malmsey, and spirit of wine, they came not up at all. This is a rich experiment for profit; for the most of the steepings are cheap things; and the goodness of the crop is a great matter of gain; if the goodness of the crop answer the earliness of the coming up: as it is like it will; both being from the vigour of the seed; which also partly appeared in the former experiments, as hath been said. This experiment would be tried in other grains, seeds, and kernels: for it may be some steeping will agree best with some seeds. It would be tried also with roots steeped as before, but for longer time. It would be tried also in several seasons of the year, especially the spring.



403. STRAWBERRIES watered now and then (as once in three days) with water wherein hath been steeped sheeps dung or pigeons dung, will prevent and come early. And it is like the same effect would follow in other berries, herbs, flowers, grains, or trees. And therefore it is an experiment, though vulgar in strawberries, yet not brought into use generally; for it is usual to help the ground with muck; and likewise to recomfort it sometimes with muck put to the roots; but to water it with muck water, which is like to be more forcible, is not practised.

404. DUNG, or chalk, or blood, applied in substance (seasonably) to the roots of trees, doth set them forwards. But to do it unto herbs, without mixture of water or earth, it may be these helps are too hot.

405. THE former means of helping germination, are either by the goodness and strength of the nourishment; or by the comforting and exciting the spirits in the plant, to draw the nourishment better. And of this latter kind, concerning the comforting of the spirits of the plant, are also the experiments that follow; though they be not applications to the root or seed. The planting of trees warm upon a wall against the south, or south-east sun, doth hasten their coming on and ripening; and the south-east is found to be better than the south-west, though the south-west be the hotter coast. But the cause is chiefly, for that the heat of the morning succedeth the cold of the night: and partly, because (many times) the south-west sun is too parching. So likewise the planting of them upon the back of a chimney where a fire is kept, doth hasten their coming on and ripening: nay more, the drawing of the boughs into the inside of a room where a fire is continually kept, worketh the same effect; which hath been tried with grapes; inasmuch as they will come a month earlier than the grapes abroad.

406. BESIDES the two means of accelerating germination formerly described; that is to say, the mending of the nourishment; and comforting of the spirit of the plant; there is a third, which is the making way for the easy coming to the nourishment, and drawing it. And therefore gentle digging and loosening of the earth about the roots of trees; and the removing herbs and flowers into new earth once in two years (which is the same thing; for the new earth is ever looser) doth greatly further the prospering and earliness of plants.

407. BUT the most admirable acceleration by facilitating the nourishment is that of water. For a standard of a damask rose with the root on, was set in a chamber where no fire was, upright in an earthen pan, full of fair water, without any mixture, half a foot under the water, the standard being more than two foot high above the water: within the space of ten days the standard did put forth a fair green leaf, and some other little buds, which stood at a stay, without any shew of decay or withering, more than seven days. But afterwards that leaf faded, but the young buds did sprout on; which afterward opened into fair leaves in the space of three months; and continued so a while after, till upon removal we left the trial. But note that the leaves were somewhat paler and lighter-coloured, than the leaves used to be abroad. Note that the first buds were in the end of October; and it is likely that if it had been in the spring time, it would have put forth with greater strength, and (it may be) to have grown on to bear flowers. By this means you may have (as it seemeth) roses set in the midst of a pool, being supported with some stay; which is matter of rareness and pleasure, though of small use. This is the more strange, for that the like rose-standard was put at the same time into water mixed with horse dung, the horse dung about the fourth part to the water, and in four months space (while it was observed) put not forth any leaf, though divers buds at the first, as the other.

408. A Dutch flower that had a bulbous root, was likewise put at the same time all under water, some two or three fingers deep; and within seven days sprouted, and continued long after further growing. There were also put in, a beet-root, a borage-root, and a radish-root, which had all their leaves cut almost close to the roots; and within six weeks had fair leaves; and so continued till the end of November.

409. NOTE, that if roots, or pease, or flowers, may be accelerated in their coming and ripening, there is a double profit; the one in the high price that those



those things bear when they come early: the other in the swiftness of their returns: for in some grounds which are strong, you shall have a radish, *etc.* come in a month, that in other grounds will not come in two, and so make double returns.

410. WHEAT also was put into the water, and came not forth at all; so as it seemeth there must be some strength and bulk in the body put into the water, as it is in roots; for grains, or seeds, the cold of the water will mortify. But casually some wheat lay under the pan, which was somewhat moistened by the suing of the pan; which in six weeks (as aforesaid) looked mouldy to the eye, but it was sprouted forth half a finger's length.

411. It seemeth by these instances of water, that for nourishment the water is almost all in all, and that the earth doth but keep the plant upright, and save it from over-heat and over-cold; and therefore is a comfortable experiment for good drinkers. It proveth also that our former opinion, that drink incorporate with flesh or roots (as in capon-beer, *etc.*) will nourish more easily, than meat and drink taken severally.

412. THE housing of plants (I conceive) will both accelerate germination, and bring forth flowers and plants in the colder seasons: and as we house hot-country plants, as lemons, oranges, myrtles, to save them; so we may house our own country plants, to forward them, and make them come in the cold seasons; in such sort, that you may have violets, strawberries, pease, all winter: so that you sow or remove them at fit times. This experiment is to be referred unto the comforting of the spirit of the plant by warmth, as well as housing their boughs, *etc.* So then the means to accelerate germination, are in particular eight, in general three.

*Experiments in consort touching the putting back or retardation of germination.*

413. To make roses, or other flowers come late, it is an experiment of pleasure. For the ancients esteemed much of *rosa sera*. And indeed the November rose is the sweetest, having been less exhaled by the sun. The means are these. First, the cutting off their tops immediately after they have done bearing; and then they will come again the same year about November: but they will not come just on the tops where they were cut but out of those shoots which were (as it were) water boughs. The cause is, for that the sap, which otherwise would have fed the top (though after bearing) will, by the discharge of that, divert unto the side sprouts; and they will come to bear, but later.

414. THE second is the pulling off the buds of the rose, when they are newly knotted; for then the side branches will bear. The cause is the same with the former: for cutting off the tops, and pulling off the buds, work the same effect, in retention of the sap for a time, and diversion of it to the sprouts that were not so forward.

415. THE third is the cutting off some few of the top boughs in the spring time, but suffering the lower boughs to grow on. The cause is, for that the boughs do help to draw up the sap more strongly; and we see that in polling of trees, many do use to leave a bough or two on the top, to help to draw up the sap. And it is reported also, that if you graft upon the bough of a tree, and cut off some of the old boughs, the new cions will perish.

416. THE fourth is by laying the roots bare about Christmas some days. The cause is *perish*, for that it doth arrest the sap from going upwards for a time; which arrest is afterwards released by the covering of the root again with earth; and then the sap getteth up, but later.

417. THE fifth is the removing of the tree some month before it buddeth. The cause is, for that some time will be required after the remove for the resetting, before it can draw the juice; and that time being lost, the blossom must needs come forth later.

418. THE sixth is the grafting of roses in May, which commonly gardeners do not till July; and then they bear not till the next year; but if you graft them in May, they will bear the same year, but late.

419. THE seventh is the girding of the body of the tree about with some pack-



thread; for that also in a degree restraineth the sap, and maketh it come up more late and more slowly.

420. THE eighth is the planting of them in a shade, or in a hedge; the cause is, partly the keeping out of the sun, which hasteneth the sap to rise; and partly the robbing of them of nourishment, by the stuff in the hedge. These means may be practised upon other, both trees and flowers, *mutatis mutandis*.

421. MEN have entertained a conceit that sheweth prettily; namely, that if you graft a late-coming fruit upon a stock of a fruit-tree that cometh early, the graft will bear fruit early; as a peach upon a cherry; and contrariwise, if an early-coming fruit upon a stock of a fruit-tree that cometh late, the graft will bear fruit late; as a cherry upon a peach. But these are but imaginations, and untrue. The cause is, for that the cion over-ruleth the stock quite; and the stock is but passive only, and giveth aliment, but no motion to the graft.

*Experiments in consort touching the melioration of fruits, trees, and plants.*

WE will speak now, how to make fruits, flowers, and roots larger, in more plenty, and sweeter than they use to be; and how to make the trees themselves more tall, more spread, and more hasty and sudden than they use to be. Wherein there is no doubt, but the former experiments of acceleration will serve much to these purposes. And again, that these experiments, which we shall now set down, do serve also for acceleration, because both effects proceed from the encrease of vigour in the tree; but yet to avoid confusion, and because some of the means are more proper for the one effect, and some for the other, we will handle them apart.

422. IT is an assured experience, that an heap of flint, or stone, laid about the bottom of a wild tree (as an oak, elm, ash, *etc.*) upon the first planting, doth make it prosper double as much as without it. The cause is, for that it retaineth the moisture which falleth at any time upon the tree, and suffereth it not to be exhaled by the sun. Again, it keepeth the tree warm from cold blasts and frosts, as it were in an house. It may be also there is somewhat in the keeping of it steady at the first. *Quære*, if laying of straw some height about the body of a tree, will not make the tree forwards. For though the root giveth the sap, yet it is the body that draweth it. But you must note, that if you lay stones about the stalk of lettuce, or other plants that are more soft, it will over-moisten the roots, so as the worms will eat them.

423. A TREE, at the first setting, should not be shaken, until it hath taken root fully: and therefore some have put two little forks about the bottom of their trees to keep them upright; but after a year's rooting, then shaking doth the tree good, by loosening of the earth, and (perhaps) by exercising (as it were) and stirring the sap of the tree.

424. GENERALLY the cutting away of boughs and suckers at the root and body doth make trees grow high; and contrariwise, the polling and cutting of the top maketh them grow spread and bushy. As we see in pollards, *etc.*

425. IT is reported, that to make hasty-growing coppice woods, the way is, to take willow, fallow, poplar, alder, of some seven years growth; and to set them, not upright, but alope, a reasonable depth under the ground; and then instead of one root they will put forth many, and so carry more shoots upon a stem.

426. WHEN you would have many new roots of fruit trees, take a low tree and bow it, and lay all his branches asflat upon the ground, and cast earth upon them; and every twig will take root. And this is a very profitable experiment for costly trees (for the boughs will make stocks without charge;) such as are apricots, peaches, almonds, cornelians, mulberries, figs, *etc.* The like is continually practised with vines, roses, musk-roses, *etc.*

427. FROM May to July you may take off the bark of any bough, being of the bigness of three or four inches, and cover the bare place, somewhat above and below, with loam well tempered with horse-dung, binding it fast down. Then cut off the bough about Allhollontide in the bare place, and set it in the ground; and it will grow to be a fair tree in one year. The cause may be, for  
Vol. I.



that the baring from the bark keepeth the sap from descending towards winter, and so holdeth it in the bough; and it may be also that the loam and horse-dung applied to the bare place do moisten it, and cherish it, and make it more apt to put forth the root. Note, that this may be a general means for keeping up the sap of trees in their boughs; which may serve to other effects.

428. It hath been practised in trees that shew fair and bear not, to bore a hole through the heart of the tree, and thereupon it will bear. Which may be, for that the tree before had too much repletion, and was oppressed with its own sap; for repletion is an enemy to generation.

429. It hath been practised in trees that do not bear, to cleave two or three of the chief roots, and to put into the cleft a small pebble, which may keep it open, and then it will bear. The cause may be, for that a root of a tree may be (as it were) hide-bound, no less than the body of the tree; but it will not keep open without somewhat put into it.

430. It is usually practised, to set trees that require much sun upon walls against the south; as apricots, peaches, plums, vines, figs, and the like. It hath a double commodity; the one, the heat of the wall by reflexion; the other, the taking away of the shade; for when a tree groweth round, the upper boughs overshadow the lower: but when it is spread upon a wall, the sun cometh alike upon the upper and lower branches.

431. It hath also been practised (by some) to pull off some leaves from the trees so spread, that the sun may come upon the bough and fruit the better. There hath been practised also a curiosity, to set a tree upon the north side of a wall, and at a little height, to draw it through the wall, and spread it upon the south side: conceiving that the root and lower part of the stock should enjoy the freshness of the shade; and the upper boughs, and fruit, the comfort of the sun. But it sorted not; the cause is, for that the root requireth some comfort from the sun, though under earth, as well as the body: and the lower part of the body more than the upper, as we see in compassing a tree below with straw.

432. The lowness of the bough where the fruit cometh, maketh the fruit greater, and to ripen better; for you shall ever see, in apricots, peaches, or melocotones upon a wall, the greatest fruits towards the bottom. And in France, the grapes that make the wine, grow upon low vines bound to small stakes; and the raised vines in arbours make but verjuice. It is true, that in Italy, and other countries where they have hotter sun, they raise them upon elms and trees; but I conceive, that if the French manner of planting low were brought in use there, their wines would be stronger and sweeter. But it is more chargeable in respect of the props. It were good to try whether a tree grafted somewhat near the ground, and the lower boughs only maintained, and the higher continually pruned off, would not make a larger fruit.

433. To have fruit in greater plenty, the way is, to graft, not only upon young stocks, but upon divers boughs of an old tree; for they will bear great numbers of fruit: whereas if you graft but upon one stock, the tree can bear but few.

434. The digging yearly about the roots of trees, which is a great means both to the acceleration and melioration of fruits, is practised in nothing but in vines; which if it were transferred unto other trees and shrubs (as roses, *etc.*) I conceive would advance them likewise.

435. It hath been known, that a fruit-tree hath been blown up (almost) by the roots, and set up again, and the next year bear exceedingly. The cause of this was nothing but the loosening of the earth, which comforteth any tree, and is fit to be practised more than it is in fruit-trees: for trees cannot be so fitly removed into new grounds, as flowers and herbs may.

436. To revive an old tree, the digging of it about the roots, and applying new mould to the roots, is the way. We see also that draught-oxen, put into fresh pasture gather new and tender flesh; and in all things, better nourishment than hath been used doth help to renew; especially if it be not only better but changed, and differing from the former.



437. If an herb be cut off from the roots in the beginning of winter, and then the earth be trodden and beaten down hard with the foot and spade, the roots will become of very great magnitude in summer. The reason is, for that the moisture being forbidden to come up in the plant, stayeth longer in the root, and so dilateth it. And gardeners use to tread down any loose ground after they have sown onions, or turnips, *etc.*

438. If *panicum* be laid below and about the bottom of a root, it will cause the root to grow to an excessive bigness. The cause is, for that being itself of a spongy substance, it draweth the moisture of the earth to it, and so feedeth the root. This is of greatest use for onions, turnips, parsnips, and carrots.

439. The shifting of ground is a means to better the tree and fruit; but with this caution, that all things do prosper best when they are advanced to the better: your nursery of stocks ought to be in a more barren ground than the ground is whereunto you remove them. So all grafters prefer their cattle from meaner pastures to better. We see also, that hardness in youth lengtheneth life, because it leaveth a cherishing to the better of the body in age: nay, in exercises, it is good to begin with the hardest, as dancing in thick shoes, *etc.*

440. It hath been observed, that hacking of trees in their bark, both downright and across, so as you may make them rather in slices than in continued hacks, doth great good to trees; and especially delivereth them from being hidebound, and killeth their moss.

441. SHADE to some plants conduceth to make them large and prosperous, more than sun; as in strawberries and bays, *etc.* Therefore amongst strawberries sow here and there some borage seed; and you shall find the strawberries under those leaves far more large than their fellows. And bays you must plant to the north, or defend them from the sun by a hedge-row; and when you sow the berries, weed not the borders for the first half year; for the weed giveth them shade.

442. To encrease the crops of plants, there would be considered not only the encreasing the lust of the earth, or of the plant, but the saving also of that which is spilt. So they have lately made a trial to set wheat; which nevertheless hath been left off, because of the trouble and pains: yet so much is true, that there is much saved by the setting, in comparison of that which is sown; both by keeping it from being picked up by birds, and by avoiding the shallow lying of it, whereby much that is sown taketh no root.

443. It is prescribed by some of the ancients, that you take small trees, upon which figs or other fruit grow, being yet unripe, and cover the trees in the middle of autumn with dung until the spring; and then take them up in a warm day, and replant them in good ground; and by that means the former year's tree will be ripe, as by a new birth, when other trees of the same kind do but blossom. But this seemeth to have no great probability.

444. It is reported, that if you take nitre, and mingle it with water, to the thicknels of honey, and therewith anoint the bud, after the vine is cut, it will sprout forth within eight days. The cause is like to be (if the experiment be true) the opening of the bud, and of the parts contiguous, by the spirit of the nitre; for nitre is (as it were) the life of vegetables.

445. TAKE seed, or kernels of apples, pears, oranges; or a peach, or a plum-stone, *etc.* and put them into a squill (which is like a great onion) and they will come up much earlier than in the earth itself. This I conceive to be as a kind of grafting in the root; for as the stock of a graft yieldeth better prepared nourishment to the graft, than the crude earth; so the squill doth the like to the seed. And I suppose the same would be done, by putting kernels into a turnip, or the like; save that the squill is more vigorous and hot. It may be tried also, with putting onion-seed into an onion-head, which thereby (perhaps) will bring forth a larger and earlier onion.

446. The pricking of a fruit in several places, when it is almost at its bigness, and before it ripeneth, hath been practised with success, to ripen the fruit more suddenly. We see the example of the biting of wasps or worms upon fruit, whereby it (manifestly) ripeneth the sooner.



447. It is reported, that *alga marina* (sea-weed) put under the roots of coleworts, and (perhaps) of other plants, will further their growth. The virtue (no doubt) hath relation to salt, which is a great help to fertility.

448. It hath been practised, to cut off the stalks of cucumbers, immediately after their bearing, close by the earth; and then to cast a pretty quantity of earth upon the plant that remaineth, and they will bear the next year fruit long before the ordinary time. The cause may be, for that the sap goeth down the sooner, and is not spent in the stalk or leaf, which remaineth after the fruit. Where note, that the dying in the winter of the roots of plants that are annual, seemeth to be partly caused by the over-expectance of the sap into stalk and leaves; which being prevented, they will super-annuate, if they stand warm.

449. The pulling off many of the blossoms from a fruit tree, doth make the fruit fairer. The cause is manifest; for that the sap hath the less to nourish. And it is a common experience, that if you do not pull off some blossoms the first time a tree bloometh, it will blossom itself to death.

450. It were good to try, what would be the effect, if all the blossoms were pulled from a fruit tree; or the acorns and chestnut buds, *etc.* from a wild tree, for two years together. I suppose that the tree will either put forth the third year bigger and more plentiful fruit; or else, the same years, larger leaves, because of the sap stored up.

451. It hath been generally received, that a plant watered with warm water, will come up sooner and better, than with cold water or with showers. But our experiment of watering wheat with warm water (as hath been said) succeeded not; which may be, because the trial was too late in the year, *viz.* in the end of October. For the cold then coming upon the seed, after it was made more tender by the warm water, might check it.

452. There is no doubt, but that grafting (for the moist part) doth meliorate the fruit. The cause is manifest; for that the nourishment is better prepared in the stock, than in the crude earth: but yet note well, that there be some trees, that are said to come up more happily from the kernel than from the graft; as the peach and melocotone. The cause I suppose to be, for that those plants require a nourishment of great moisture; and though the nourishment of the stock be finer and better prepared, yet it is not so moist and plentiful as the nourishment of the earth. And indeed we see those fruits are very cold fruits in their nature.

453. It hath been received, that a smaller pear grafted upon a stock that beareth a greater pear, will become great. But I think it is as true, as that of the prime fruit upon the late stock; and *e converso*; which we rejected before: for the cion will govern. Nevertheless, it is probable enough, that if you can get a cion to grow upon a stock of another kind, that is much moister than its own stock, it may make the fruit greater, because it will yield more plentiful nourishment; though it is like it will make the fruit baser. But generally the grafting is upon a drier stock; as the apple upon a crab; the pear upon a thorn; *etc.* Yet it is reported, that in the Low-Countries they will graft an apple cion upon the stock of a colewort, and it will bear a great flaggy apple; the kernel of which, if it be set, will be a colewort, and not an apple. It were good to try, whether an apple cion will prosper, if it be grafted upon a fallow, or upon a poplar, or upon an alder, or upon an elm, or upon an horse-plum, which are the moister of trees. I have heard that it hath been tried upon an elm and succeeded.

454. It is manifest by experience, that flowers removed wax greater, because the nourishment is more easily come by in the loose earth. It may be, that oft regrafting of the same cion may likewise make fruit greater; as if you take a cion, and graft it upon a stock the first year; and then cut it off, and graft it upon another stock the second year; and so for a third or fourth year; and then let it rest, it will yield afterward, when it beareth, the greater fruit.

Of grafting there are many experiments worth the noting, but those we reserve to a proper place.



455. It maketh figs better, if a fig-tree, when it beginneth to put forth leaves, have his top cut off. The cause is plain, for that the sap hath the less to feed, and the less way to mount: but it may be the fig will come somewhat later, as was formerly touched. The same may be tried likewise in other trees.

456. It is reported, that mulberries will be fairer, and the trees more fruitful, if you bore the trunk of the tree through in several places, and thrust into the places bored wedges of some hot trees, as turpentine, mastick-tree, guaiacum, juniper, *etc.* The cause may be, for that adventive heat doth chear up the native juice of the tree.

457. It is reported, that trees will grow greater, and bear better fruit, if you put salt, or lees of wine, or blood to the root. The cause may be the encreasing the lust or spirit of the root; these things being more forcible than ordinary composts.

458. It is reported by one of the ancients, that artichokes will be less prickly, and more tender, if the seeds have their tops dulled, or grated off upon a stone.

459. HERBS will be tenderer and fairer, if you take them out of beds, when they are newly come up, and remove them into pots with better earth. The remove from bed to bed was spoken of before; but that was in several years; this is upon the sudden. The cause is the same with other removes formerly mentioned.

460. COLEWORTS are reported by one of the ancients to prosper exceedingly, and to be better tasted, if they be sometimes watered with salt water; and much more with water mixed with nitre; the spirit of which is less adurent than salt.

461. It is reported, that cucumbers will prove more tender and dainty, if their seeds be steeped (a little) in milk; the cause may be, for that the seed being mollified with the milk, will be too weak to draw the grosser juice of the earth, but only the finer. The same experiment may be made in artichokes and other seeds, when you would take away either their harshness or bitterness. They speak also, that the like effect followeth of steeping in water mixed with honey; but that seemeth to me not so probable, because honey hath too quick a spirit.

462. It is reported, that cucumbers will be less watry, and more melon-like, if in the pit where you set them, you fill it (half-way up) with chaff, or small sticks, and then pour earth upon them; for cucumbers, as it seemeth, do extremely affect moisture, and over-drink themselves; which this chaff or chips forbiddeth. Nay, it is farther reported, that if when a cucumber is grown, you set a pot of water about five or six inches distance from it, it will in twenty four hours shoot so much out as to touch the pot; which, if it be true, it is an experiment of an higher nature than belongeth to this title: for it discovereth perception in plants, to move towards that which should help and comfort them, though it be at a distance. The ancient tradition of the vine is far more strange; it is, that if you set a stake or prop some distance from it, it will grow that way; which is far stranger (as is said) than the other: for that water may work by a sympathy of attraction; but this of the stake seemeth to be a reasonable discourse.

463. It hath been touched before, that terebration of trees doth make them prosper better. But it is found also, that it maketh the fruit sweeter and better. The cause is, for that, notwithstanding the terebration, they may receive aliment sufficient, and yet no more than they can well turn and digest; and withal do sweat out the coarsest and unprofitablest juice; even as it is in living creatures, which by moderate feeding, and exercise, and sweat, attain the soundest habit of body.

464. As terebration doth meliorate fruit, so upon the like reason doth letting of plants blood; as pricking vines, or other trees, after they be of some growth; and thereby letting forth gum or tears; though this be not to continue, as it is in terebration, but at some seasons. And it is reported, that by this artifice bitter almonds have been turned into sweet.

465. THE ancients for the dulcorating of fruit do commend swines dung above all other dung; which may be because of the moisture of that beast,



whereby the excrement hath less acrimony; for we see swines and pigs flesh is the moistest of feshes.

466. It is observed by some, that all herbs wax sweeter, both in smell and taste, if after they be grown up some reasonable time, they be cut, and so you take the latter sprout. The cause may be, for that the longer the juice stayeth in the root and stalk, the better it concocteth. For one of the chief causes why grains, seeds, and fruits are more nourishing than leaves, is the length of time in which they grow to maturation. It were not amiss to keep back the sap of herbs, or the like, by some fit means, till the end of summer; whereby (it may be) they will be more nourishing.

467. As grafting doth generally advance and meliorate fruits, above that which they would be if they were set of kernels or stones, in regard the nourishment is better concocted; so (no doubt) even in grafting, for the same cause, the choice of the stock doth much; always provided, that it be somewhat inferior to the cion: for otherwise it dulseth it. They commend much the grafting of pears or apples upon a quince.

468. Besides the means of melioration of fruits before mentioned, it is set down as tried, that a mixture of bran and swines dung, or chaff and swines dung (especially laid up together for a month to rot) is a very great nourisher and comforter to a fruit-tree.

469. It is delivered, that onions wax greater if they be taken out of the earth, and laid a drying twenty days, and then set again; and yet more, if the outermost pill be taken off all over.

470. It is delivered by some, that if one take the bough of a low fruit-tree newly budded, and draw it gently, without hurting it, into an earthen pot perforate at the bottom to let in the plant, and then cover the pot with earth, it will yield a very large fruit within the ground. Which experiment is nothing but potting of plants without removing, and leaving the fruit in the earth. The like (they say) will be effected by an empty pot without earth in it, put over a fruit, being propped up with a stake, as it hangeth upon the tree; and the better, if some few pertussions be made in the pot. Wherein, besides the descending of the fruit from extremity of sun or weather, some give a reason, that the fruit loving and coveting the open air and sun, is invited by those pertussions to spread and approach as near the open air as it can; and so enlargeth in magnitude.

471. ALL trees in high and sandy grounds are to be set deep; and in watry grounds more shallow. And in all trees, when they be removed (especially fruit-trees) care ought to be taken, that the sides of the trees be coated (north and south, *etc.*) as they stood before. The same is said also of stone out of the quarry, to make it more durable; though that seemeth to have less reason; because the stone lieth not so near the sun, as the tree groweth.

472. TIMBER trees in a coppice wood do grow better than in an open field; both because they offer not to spread so much, but shoot up still in height; and chiefly because they are defended from too much sun and wind, which do check the growth of all fruit; and so (no doubt) fruit-trees, or vines, set upon a wall against the sun, between elbows or buttresses of stone, ripen more than upon a plain wall.

473. It is said, that if potado-roots be set in a pot filled with earth, and then the pot with earth be set likewise within the ground some two or three inches, the roots will grow greater than ordinary. The cause may be, for that having earth enough within the pot to nourish them; and then being stopped by the bottom of the pot from putting strings downward, they must needs grow greater in breadth and thickness. And it may be, that all seeds or roots potted, and so set into the earth, will prosper the better.

474. THE cutting off the leaves of radish, or other roots, in the beginning of winter, before they wither, and covering again the root something high with earth, will preserve the root all winter, and make it bigger in the spring following, as hath been partly touched before. So that there is a double use of this cutting off the leaves; for in plants where the root is the esculent, as radish and



parsnips, it will make the root the greater; and so it will do to the heads of onions. And where the fruit is the esculent, by strengthening the root, it will make the fruit also the greater.

475. It is an experiment of great pleasure, to make the leaves of shady trees larger than ordinary. It hath been tried (for certain) that a cion of a weech-elm, grafted upon the stock of an ordinary elm, will put forth leaves almost as broad as the brim of one's hat. And it is very likely, that as in fruit-trees the graft maketh a greater fruit; so in trees that bear no fruit, it will make the greater leaves. It would be tried therefore in trees of that kind chiefly, as birch, asp, willow; and especially the shining willow, which they call swallow-tail, because of the pleasure of the leaf.

476. The barrenness of trees by accident (besides the weakness of the soil, seed, or root; and the injury of the weather) cometh either of their overgrowing with moss, or their being hide-bound, or their planting too deep, or by issuing of the sap too much into the leaves. For all these there are remedies mentioned before.

*Experiments in consort touching compound fruits and flowers.*

We see that in living creatures, that have male and female, there is copulation of several kinds; and so compound creatures; as the mule, that is generated betwixt the horse and the ass; and some other compounds which we call monsters, though more rare; and it is held that that proverb, *Africa semper aliquid monstrum parit*, cometh, for that the fountains of waters there being rare, divers sorts of beasts come from several parts to drink; and so being refreshed, fall to couple, and many times with several kinds. The compounding or mixture of kinds in plants is not found out; which nevertheless, if it be possible, is more at command than that of living creatures; for that their lust requireth a voluntary motion; wherefore it were one of the most noble experiments touching plants to find it out: for so you may have great variety of new fruits and flowers yet unknown. Grafting doth it not: that mendeth the fruit, or doubleth the flowers, *etc.* but it hath not the power to make a new kind. For the cion ever over-ruleth the stock.

477. It hath been set down by one of the ancients, that if you take two twigs of several fruit-trees, and flat them on the sides, and then bind them close together and set them in the ground, they will come up in one stock; but yet they will put forth their several fruits without any commixture in the fruit. Wherein note (by the way) that unity of continuance is easier to procure than unity of species. It is reported also, that vines of red and white grapes being set in the ground, and the upper parts being flatted and bound close together, will put forth grapes of the several colours upon the same branch; and grape stones of several colours within the same grape: but the more after a year or two; the unity (as it seemeth) growing more perfect. And this will likewise help, if from the first uniting they be often water'd; for all moisture helpeth to union. And it is prescribed also to bind the bud as soon as it cometh forth, as well as the stock, at the least for a time.

478. They report, that divers seeds put into a clout, and laid in earth well dunged, will put up plants contiguous; which (afterwards) being bound in, their shoots will incorporate. The like is said of kernels put into a bottle with a narrow mouth filled with earth.

479. It is reported, that young trees of several kinds set contiguous without any binding, and very often water'd, in a fruitful ground, with the very luxury of the trees will incorporate and grow together. Which seemeth to me the likeliest means that hath been propounded; for that the binding doth hinder the natural swelling of the tree; which while it is in motion doth better unite.

*Experiments in consort touching the sympathy and antipathy of plants.*

THERE are many ancient and received traditions and observations touching the sympathy and antipathy of plants; for that some will thrive best growing near others, which they impute to sympathy; and some worse, which they impute



impute to antipathy. But these are idle and ignorant conceits, and forsake the true indication of the causes, as the most part of experiments that concern sympathies and antipathies do. For as to plants, neither is there any such secret friendship or hatred as they imagine; and if we should be content to call it sympathy and antipathy, it is utterly mistaken; for their sympathy is an antipathy, and their antipathy is a sympathy: for it is thus; Whereforever one plant draweth such a particular juice out of the earth, as it qualifieth the earth, so as that juice which remaineth is fit for the other plant; there the neighbourhood doth good, because the nourishments are contrary or several: but where two plants draw (much) the same juice, there the neighbourhood hurteth, for the one de-ceiveth the other.

480. FIRST therefore, all plants that do draw much nourishment from the earth, and so soak the earth and exhaust it, hurt all things that grow by them; as great trees (especially ashes) and such trees as spread their roots near the top of the ground. So the colewort is not an enemy (though that were anciently received) to the vine only; but it is an enemy to any other plant, because it draweth strongly the fattest juice of the earth. And if it be true, that the vine when it creepeth near the colewort will turn away, this may be, because there it findeth worse nourishment; for though the root be where it was, yet (I doubt) the plant will bend as it nourisheth.

481. WHERE plants are of several natures, and draw several juices out of the earth, there (as hath been said) the one set by the other helpeth: as it is set down by divers of the ancients, that rue doth prosper much, and becometh stronger, if it be set by a fig-tree; which (we conceive) is caused not by reason of friendship, but by extraction of a contrary juice: the one drawing juice fit to result sweet, the other bitter. So they have set down likewise, that a rose set by garlick is sweeter: which likewise may be, because the more fetid juice of the earth goeth into the garlick, and the more odorate into the rose.

482. THIS we see manifestly, that there be certain corn-flowers which come seldom or never in other places, unless they be set, but only amongst corn: as the bluebottle, a kind of yellow marygold, wild poppy, and fumitory. Neither can this be, by reason of the culture of the ground, by ploughing or furrowing; as some herbs and flowers will grow but in ditches new cast; for if the ground lie fallow, and unsown, they will not come: so as it should seem to be the corn that qualifieth the earth, and prepareth it for their growth.

483. THIS observation, if it holdeth (as it is very probable) is of great use for the meliorating of taste in fruits and esculent herbs, and of the scent of flowers. For I do not doubt, but if the fig-tree do make the rue more strong, and bitter (as the ancients have noted) good store of rue planted about the fig-tree will make the fig more sweet. Now the tastes that do most offend in fruits, and herbs, and roots, are bitter, harsh, sour, and watrish, or fleshy. It were good therefore to make the trials following:

484. TAKE wormwood, or rue, and set it near lettuce, or colefory, or artichoke, and see whether the lettuce, or the colefory, *etc.* become not the sweeter.

485. TAKE a service-tree, or a cornelian-tree, or an elder-tree, which we know have fruits of harsh and binding juice, and set them near a vine, or fig-tree, and see whether the grapes or figs will not be the sweeter.

486. TAKE cucumbers, or pumpions, and set them (here and there) amongst musk-melons, and see whether the melons will not be more winy, and better tasted. Set cucumbers (likewise) amongst radish, and see whether the radish will not be made the more biting.

487. TAKE sorrel, and set it amongst rasps, and see whether the rasps will not be the sweeter.

488. TAKE common briar, and set it amongst violets or wall-flowers, and see whether it will not make the violets or wall-flowers sweeter, and less earthy in their smell. So set lettuce, or cucumbers, amongst rosemary or bays, and see whether the rosemary or bays will not be the more odorate or aromatical.

489. CONTRARIWISE, you must take heed how you set herbs together, that draw much the like juice. And therefore I think rosemary will lose in sweetness,



nels, if it be set with lavender, or bays, or the like. But yet if you will correct the strength of an herb, you shall do well to set other like herbs by him to take him down; as if you should set tansey by angelica, it may be the angelica would be the weaker, and fitter for mixture in perfume. And if you should set rue by common wormwood, it may be the wormwood would turn to be liker Roman wormwood.

490. This axiom is of large extent; and therefore would be severed, and refined by trial. Neither must you expect to have a gross difference by this kind of culture, but only farther perfection.

491. TRIAL would be also made in herbs poisonous and purgative, whose ill quality (perhaps) may be discharged, or attempered, by setting stronger poisons or purgatives by them.

492. It is reported, that the shrub called our ladies seal, (which is a kind of briony) and coleworts, set near together, one or both will die. The cause is, for that they be both great depredators of the earth, and one of them starveth the other. The like is said of a reed and a brake: both which are succulent; and therefore the one deceiveth the other. And the like of hemlock and rue; both which draw strong juices.

493. Some of the ancients, and likewise divers of the modern writers, that have laboured in natural magick, have noted a sympathy between the sun, moon, and some principal stars, and certain herbs and plants. And so they have denominated some herbs solar, and some lunar; and such like toys put into great words. It is manifest that there are some flowers that have respect to the sun in two kinds, the one by opening and shutting, and the other by bowing and inclining the head. For marygolds, tulips, pimpernel, and indeed most flowers, do open and spread their leaves abroad when the sun shineth serene and fair: and again (in some part) close them, or gather them inward, either towards night, or when the sky is overcast. Of this there needeth no such solemn reason to be assigned; as to say, that they rejoice at the presence of the sun, and mourn at the absence thereof. For it is nothing else but a little loading of the leaves, and swelling them at the bottom, with the moisture of the air; whereas the dry air doth extend them: and they make it a piece of the wonder, that garden-claver will hide the stalk when the sun sheweth bright; which is nothing but a full expansion of the leaves. For the bowing and inclining the head, it is found in the great flower of the sun, in marygolds, wartwort, mallow flowers, and others. The cause is somewhat more obscure than the former; but I take it to be no other, but that the part against which the sun beateth waxeth more faint and flaccid in the stalk, and thereby less able to support the flower.

494. WHAT a little moisture will do in vegetables, even though they be dead and severed from the earth, appeareth well in the experiment of jugglers. They take the beard of an oat; which (if you mark it well) is wreathed at the bottom, and one smooth entire straw at the top. They take only the part that is wreathed, and cut off the other, leaving the beard half the breadth of a finger in length. Then they make a little cross of a quill, longways of that part of the quill which hath the pith; and cross-ways of that piece of the quill without pith; the whole cross being the breadth of a finger high. Then they prick the bottom where the pith is, and threinto they put the oaten-beard, leaving half of it sticking forth of the quill: then they take a little white box of wood, to deceive men, as if somewhat in the box did work the feat; in which, with a pin, they make a little hole, enough to take the beard, but not to let the cross sink down, but to stick. Then likewise, by way of imposture, they make a question; as, Who is the fairest woman in the company? or, Who hath a glove or card? and cause another to name divers persons: and upon every naming they stick the cross in the box, having first put it towards their mouth, as if they charmed it; and the cross stirreth not; but when they come to the person that they would take, as they hold the cross to their mouth, they touch the beard with the tip of their tongue, and wet it; and so stick the cross in the box; and then you shall see it turn finely and softly three or four turns; which

VOL. I.

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is caused by the untwining of the beard by the moisture. You may see it more evidently, if you stick the cross between your fingers, instead of the box; and therefore you may see, that this motion, which is effected by so little wet, is stronger than the closing or bending of the head of a margold.

495. It is reported by some, that the herb called *rosa solis* (whereof they make strong waters) will, at the noon-day, when the sun shineth hot and bright, have a great dew upon it. And therefore, that the right name is *ros solis*: which they impute to a delight and sympathy that it hath with the sun. Men favour wonders. It were good first to be sure, that the dew that is found upon it, be not the dew of the morning preserved, when the dew of other herbs is breathed away; for it hath a smooth and thick leaf, that doth not discharge the dew so soon as other herbs that are more spongy and porous. And it may be purslane, or some other herb, doth the like, and is not marked. But if it be so, that it hath more dew at noon than in the morning, then sure it seemeth to be an exudation of the herb itself. As plums sweat when they are set into the oven: for you will not (I hope) think, that it is like Gideon's fleece of wool, that the dew should fall upon that and no where else.

496. It is certain, that the honey dews are found more upon oak leaves, than upon ash, or beech, or the like: but whether any cause be from the leaf itself to concoct the dew; or whether it be only that the leaf is close and smooth (and therefore drinketh not in the dew, but preserveth it) may be doubted. It would be well enquired, whether manna the drug doth fall but upon certain herbs or leaves only. Flowers that have deep sockets, do gather in the bottom a kind of honey; as honey-suckles (both the woodbine and the trefoil) lillies, and the like. And in them certainly the flower beareth part with the dew.

497. The experience is, that the froth which they call woodseare (being like a kind of spittle) is found but upon certain herbs, and those hot ones; as lavender, lavender-cotton, sage, hyssop, etc. Of the cause of this enquire farther; for it seemeth a secret. There falleth also mildew upon corn, and smut-teth it; but it may be, that the same falleth also upon other herbs, and is not observed.

498. It were good trial were made, whether the great consent between plants and water, which is a principal nourishment of them, will make an attraction at distance, and not at touch only. Therefore take a vessel, and in the middle of it make a false bottom of coarse canvas: fill it with earth above the canvas, and let not the earth be watered; then sow some good seeds in that earth; but under the canvas, some half a foot in the bottom of the vessel, lay a great sponge thoroughly wet in water; and let it lie so some ten days, and see whether the seeds will sprout, and the earth become more moist, and the sponge more dry. The experiment formerly mentioned of the cucumber creeping to the pot of water, is far stranger than this.

*Experiments in consort touching the making herbs and fruits medicinal.*

499. The altering of the scent, colour, or taste of fruit, by insuling, mixing, or letting into the bark, or root of the tree, herb, or flower, any coloured, aromatical, or medicinal substance, are but fancies. The cause is, for that those things have passed their period, and nourish not. And all alteration of vegetables in those qualities must be by somewhat that is apt to go into the nourishment of the plant. But this is true, that where kine feed upon wild garlick, their milk tasteth plainly of the garlick: and the flesh of muttons is better tasted where the sheep feed upon wild thyme, and other wholesome herbs. Galen also speaketh of the curing of the *scirrus* of the liver, by milk of a cow that feedeth but upon certain herbs; and honey in Spain smelleth (apparently) of the rosemary, or orange, from whence the bee gathereth it: and there is an old tradition of a maiden that was fed with *nepellus*; (which is counted the strongest poison of all vegetables) which with use did not hurt the maid, but poisoned some that had carnal company with her. So it is observed by some, that there is a virtuous bezoar, and another without virtue, which ap-  
pear



pear to the shew alike : but the virtuous is taken from the beast that feedeth upon the mountains, where there are theriacal herbs ; and that without virtue, from those that feed in the valleys where no such herbs are. Thus far I am of opinion ; that as steeped wines and beers are very medicinal, and likewise bread tempered with divers powders ; so of meat also (as flesh, fish, milk, and eggs) that they may be made of great use for medicine and diet, if the beasts, fowl, or fish, be fed with a special kind of food fit for the disease. It were a dangerous thing also for secret empoisonments. But whether it may be applied unto plants and herbs, I doubt more ; because the nourishment of them is a more common juice ; which is hardly capable of any special quality, until the plant do assimilate it.

500. But lest our incredulity may prejudice any profitable operations in this kind (especially since many of the ancients have set them down) we think good briefly to propound the four means which they have devised of making plants medicinable. The first is by slitting of the root, and infusing into it the medicine ; as hellebore, opium, scammony, treacle, *etc.* and then binding it up again. This seemeth to me the least probable ; because the root draweth immediately from the earth ; and so the nourishment is the more common and less qualified : and besides, it is a long time in going up ere it come to the fruit. The second way is to perforate the body of the tree, and there to infuse the medicine ; which is somewhat better : for if any virtue be received from the medicine, it hath the less way, and the less time to go up. The third is, the steeping of the seed or kernel in some liquor wherein the medicine is infused : which I have little opinion of, because the seed (I doubt) will not draw the parts of the matter which have the propriety : but it will be far the more likely, if you mingle the medicine with dung ; for that the seed naturally drawing the moisture of the dung, may call in withal some of the propriety. The fourth is, the watering of the plant oft with an infusion of the medicine. This, in one respect, may have more force than the rest, because the medication is oft renewed ; whereas the rest are applied but at one time ; and therefore the virtue may the sooner vanish. But still I doubt, that the root is somewhat too stubborn to receive those fine impressions ; and besides (as I said before) they have a great hill to go up. I judge therefore the likeliest way to be the perforation of the body of the tree in several places one above the other ; and the filling of the holes with dung mingled with the medicine ; and the watering of those lumps of dung with squirts of an infusion of the medicine in dunged water, once in three or four days.



## NATURAL HISTORY.

## CENTURY VI.

*Experiments in consort touching curiosities about fruits and plants.*

**O**UR experiments we take care to be (as we have often said) either *experimenta frustrifera*, or *hucifera*; either of use, or of discovery: for we hate impostures, and despise curiosities. Yet because we must apply ourselves somewhat to others, we will set down some curiosities touching plants.

501. It is a curiosity to have several fruits upon one tree; and the more when some of them come early, and some come late; so that you may have upon the same tree ripe fruits all summer. This is easily done by grafting of several cions upon several boughs, of a stock, in a good ground plentifully fed. So you may have all kinds of cherries, and all kinds of plums, and peaches, and apricots, upon one tree; but I conceive the diversity of fruits must be such as will graft upon the same stock. And therefore I doubt, whether you can have apples, or pears, or oranges, upon the same stock upon which you graft plums.

502. It is a curiosity to have fruits of divers shapes and figures. This is easily performed, by moulding them when the fruit is young, with moulds of earth or wood. So you may have cucumbers, *etc.* as long as a cane; or as round as a sphere; or formed like a cross. You may have also apples in the form of pears or lemons. You may have also fruit in more accurate figures, as we said of men, beasts, or birds, according as you make the moulds. Wherein you must understand, that you make the mould big enough to contain the whole fruit when it is grown to the greatest: for else you will choke the spreading of the fruit; which otherwise would spread itself, and fill the concave, and so be turned into the shape desired; as it is in mould works of liquid things. Some doubt may be conceived, that the keeping of the sun from the fruit may hurt it: but there is ordinary experience of fruit that groweth covered. *Quare* also, whether some small holes may not be made in the wood to let in the sun. And note, that it were best to make the moulds partible, glued, or cemented together, that you may open them when you take out the fruit.

503. It is a curiosity to have inscriptions, or engravings, in fruit or trees. This is easily performed, by writing with a needle, or bodkin, or knife, or the like, when the fruit or trees are young; for as they grow, so the letters will grow more large and graphical.

--- *Tenerisque meos incidere amores*

*Arboribus; crescent illae, crescetis amores.*

504. You may have trees apparelled with flowers or herbs, by boring holes in the bodies of them, and putting into them earth holpen with muck, and setting seeds, or slips, of violets, strawberries, wild thyme, camomile, and such like in the earth. Wherein they do but grow in the tree as they do in pots; though (perhaps) with some feeding from the trees. It would be tried also with shoots of vines, and roots of red roses; for it may be they being of a more ligneous nature, will incorporate with the tree itself.

505. It is an ordinary curiosity to form trees and shrubs (as rosemary, juniper, and the like) into sundry shapes; which is done by moulding them within, and cutting them without. But they are but lame things, being too small to keep figure: great castles made of trees upon frames of timber, with turrets and arches, were matters of magnificence.



## CENT. VI. NATURAL HISTORY.

506. AMONGST curiosities I shall place coloration, though it be somewhat better: for beauty in flowers is their preeminence. It is observed by some, that gilly-flowers, sweet-williams, violets, that are coloured, if they be neglected, and neither water'd, nor new moulded, nor transplanted, will turn white. And it is probable that the white with much culture may turn coloured. For this is certain, that the white colour cometh of scarcity of nourishment; except in flowers that are only white, and admit no other colours.

507. It is good therefore to see what natures do accompany what colours; for by that you shall have light how to induce colours, by producing those natures. Whites are more inodorate (for the most part) than flowers of the same kind coloured; as is found in single white violets, white roses, white gilly-flowers, white stock-gilly-flowers, *etc.* We find also, that blossoms of trees, that are white, are commonly inodorate, as cherries, pears, plums; whereas those of apples, crabs, almonds, and peaches, are blusky, and smell sweet. The cause is, for that the substance that maketh the flower is of the thinnest and finest of the plant, which also maketh flowers to be of so dainty colours. And if it be too sparing and thin, it attaineth no strength of odour, except it be in such plants as are very succulent; whereby they need rather to be scantied in their nourishment than replenished, to have them sweet. As we see in white satyrion, which is of a dainty smell; and in bean-flowers, *etc.* And again, if the plant be of nature to put forth white flowers only, and those not thin or dry, they are commonly of rank and fulsome smell; as may-flowers, and white lilies.

508. CONTRARIWISE, in berries the white is commonly more delicate and sweet in taste than the coloured, as we see in white grapes, in white raspes, in white strawberries, in white currans, *etc.* The cause is, for that the coloured are more juiced, and coarser juiced, and therefore not so well and equally concocted; but the white are better proportioned to the digestion of the plant.

509. BUT in fruits the white commonly is meaner: as in pear-plums, damascenes, *etc.* and the choicest plums are black; the mulberry (which though they call it a berry, is a fruit) is better the black than the white. The harvest white plum is a base plum; and the verdoccio, and white date-plum, are no very good plums. The cause is, for that they are all over-watery; whereas an higher concoction is required for sweetness, or pleasure of taste; and therefore all your dainty plums are a little dry, and come from the stone; as the muscle-plum, the damascene-plum, the peach, the apricot, *etc.* yet some fruits, which grow not to be black, are of the nature of berries, sweetest such as are paler; as the coeur-cherry, which inclineth more to white, is sweeter than the red; but the egriot is more sour.

510. TAKE gilly-flower seed, of one kind of gilly-flower (as of the clove-gilly-flower, which is the most common) and sow it, and there will come up gilly-flowers, some of one colour, and some of another, casually, as the seed meeteth with nourishment in the earth; so that the gardeners find, that they may have two or three roots amongst an hundred, that are rare and of great price; as purple, carnation of several stripes; the cause is (no doubt) that in earth, though it be contiguous, and in one bed, there are very several juices; and as the seed doth casually meet with them, so it cometh forth. And it is noted especially, that those which do come up purple, do always come up single: the juice, as it seemeth, not being able to suffice a succulent colour, and a double leaf. This experiment of several colours coming up from one seed, would be tried also in larks-foot, monks-hood, poppy and holyoak.

511. FEW fruits are colour'd red within; the queen-apple is; and another apple, called the rose-apple; mulberries likewise, and grapes, though most toward the skin. There is a peach also that hath a circle of red towards the stone: and the egriot cherry is somewhat red within; but no pear, nor warden, nor plum, nor apricot, although they have (many times) red sides, are coloured red within. The cause may be enquired.

512. THE general colour of plants is green, which is a colour that no flower is of. There is a greenish primrose, but it is pale, and scarce a green. The leaves of some trees turn a little murrey, or reddish; and they be commonly young leaves  
Vol. I. F f f

that



that do so; as it is in oaks, and vines, and hazle. Leaves rot into a yellow; and some hollies have part of their leaves yellow, that are (to all seeming) as fresh and shining as the green. I suppose also, that yellow is a less succulent colour than green, and a degree nearer white. For it hath been noted, that those yellow leaves of holly stand ever towards the north, or north-east. Some roots are yellow, as carrots; and some plants blood-red, stalk and leaf, and all, as amaranthus. Some herbs incline to purple and red; as a kind of sage doth, and a kind of mint, and *rosa solis*, etc. And some have white leaves, as another kind of sage, and another kind of mint; but azure and a fair purple are never found in leaves. This sheweth, that flowers are made of a refined juice of the earth, and so are fruits; but leaves of a more coarse and common.

513. It is a curiosity also to make flowers double, which is effected by often removing them into new earth; as, on the contrary part, double flowers, by neglecting, and not removing, prove single. And the way to do it specially, is to sow or set seeds or slips of flowers; and as soon as they come up, to remove them into new ground that is good. Enquire also, whether inoculating of flowers (as stock-gilly-flowers, roses, musk-roses, etc.) doth not make them double. There is a cherry-tree that hath double blossoms; but that tree beareth no fruit: and it may be, that the same means which, applied to the tree, doth extremely accelerate the sap to rise and break forth, would make the tree spend itself in flowers, and those to become double; which were a great pleasure to see, especially in apple-trees, peach-trees, and almond-trees, that have blossoms bluish-colour'd.

514. The making of fruits without core or stone, is likewise a curiosity, and somewhat better: because whatsoever maketh them so, is like to make them more tender and delicate. If a cion or shoot, fit to be set in the ground, have the pith finely taken forth (and not altogether, but some of it left, the better to save the life) it will bear a fruit with little or no core or stone. And the like is said to be of dividing a quick tree down to the ground, and taking out the pith, and then binding it up again.

515. It is reported also, that a citron grafted upon a quince will have small or no seeds; and it is very probable, that any sour fruit grafted upon a stock that beareth a sweeter fruit, may both make the fruit sweeter, and more void of the harsh matter of kernels or seeds.

516. It is reported, that not only the taking out of the pith, but the stopping of the juice of the pith from rising in the midst, and turning it to rise on the outside, will make the fruit without core or stone; as if you should bore a tree clean through, and put a wedge in. It is true, there is some affinity between the pith and the kernel, because they are both of a harsh substance, and both placed in the midst.

517. It is reported, that trees watered perpetually with warm water, will make a fruit with little or no core or stone. And the rule is general, that whatsoever will make a wild tree a garden tree, will make a garden tree to have less core or stone.

*Experiments in consort touching the degenerating of plants, and of the transmutation of them one into another.*

518. The rule is certain, that plants for want of culture degenerate to be baser in the same kind; and sometimes so far, as to change into another kind. 1. The standing long, and not being removed, maketh them degenerate. 2. Drought, unless the earth of itself be moist, doth the like. 3. So doth removing into worse earth, or forbearing to compost the earth; as we see that water mint turneth into field mint, and the colewort into rape, by neglect, etc.

519. WHATSOEVER fruit useth to be set upon a root or a slip, if it be sown, will degenerate. Grapes sown, figs, almonds, pomegranate kernels sown, make the fruits degenerate and become wild. And again, most of those fruits that use to be grafted, if they be set of kernels, or stones, degenerate. It is true, that peaches (as hath been touched before) do better upon stones set than upon grafting: and the rule of exception should seem to be this: that whatsoever plant requireth much moisture, prospereth better upon the stone or kernel, than upon



the graft. For the stock, though it giveth a finer nourishment, yet it giveth a scantier than the earth at large.

520. SEEDS, if they be very old, and yet have strength enough to bring forth a plant, make the plant degenerate. And therefore skilful gardeners make trial of the seeds before they buy them, whether they be good or no, by putting them into water gently boiled; and if they be good, they will sprout within half an hour.

521. It is strange which is reported, that basil too much exposed to the sun doth turn into wild thyme; although those two herbs seem to have small affinity; but basil is almost the only hot herb that hath fat and succulent leaves; which oiliness, if it be drawn forth by the sun, it is like it will make a very great change.

522. THERE is an old tradition, that boughs of oak put into the earth will put forth wild vines: which if it be true (no doubt) it is not the oak that turneth into a vine, but the oak bough putrefying, qualifieth the earth to put forth a vine of itself.

523. It is not impossible, and I have heard it verified, that upon cutting down of an old timber tree, the stub hath put out sometimes a tree of another kind; as that beech hath put forth birch; which, if it be true, the cause may be, for that the old stub is too scant of juice to put forth the former tree; and therefore putteth forth a tree of a smaller kind that needeth less nourishment.

524. THERE is an opinion in the country, that if the same ground be oft sown with the grain that grew upon it, it will in the end grow to be of a baser kind.

525. It is certain, that in very sterile years corn sown will grow to another kind.

*Grandia saepe quibus mandavimus bordeas sulcis,*

*In felix lolium, et steriles dominantur avenae.*

And generally it is a rule, that plants that are brought forth by culture, as corn, will sooner change into other species, than those that come of themselves; for that culture giveth but an adventitious nature, which is more easily put off.

THIS work of the transmutation of plants one into another, is *inter magnalia naturae*; for the transmutation of species is, in the vulgar philosophy, pronounced impossible: and certainly it is a thing of difficulty, and requireth deep search into nature; but seeing there appear some manifest instances of it, the opinion of impossibility is to be rejected, and the means thereof to be found out. We see, that in living creatures, that come of putrefaction, there is much transmutation of one into another; as caterpillars turn into flies, *etc.* And it should seem probable, that whatsoever creature, having life, is generated without seed, that creature will change out of one species into another. For it is the seed, and the nature of it, which locketh and boundeth in the creature, that it doth not expatiate. So as we may well conclude, that seeing the earth of itself doth put forth plants without seed, therefore plants may well have a transmigration of species. Wherefore, wanting instances which do occur, we shall give directions of the most likely trials: and generally we would not have those that read this our work of *Sylva sylvarum* account it strange, or think that it is an over-haste, that we have set down particulars untied; for contrariwise, in our own estimation, we account such particulars more worthy than those that are already tried and known: for these latter must be taken as you find them; but the other do level point-blank at the inventing of causes and axioms.

526. FIRST therefore you must make account, that if you will have one plant change into another, you must have the nourishment over-rule the seed; and therefore you are to practise it by nourishments as contrary as may be to the nature of the herb, so nevertheless as the herb may grow; and likewise with seeds that are of the weakest sort, and have least vigour. You shall do well therefore to take marsh-herbs, and plant them upon tops of hills and champaigns; and such plants as require much moisture, upon sandy and very dry grounds. As for example, marsh-mallows and sedge, upon hills; cucumber, and lettuce seeds, and coleworts, upon a sandy plot: so contrariwise, plant bushes, heath, ling, and brakes, upon a wet or marsh ground. This I conceive also, that all esculent and garden herbs, set upon the tops of hills, will prove more medicinal, though less esculent, than they were before. And it may be likewise, some wild herbs you may make salad-herbs. This is the first rule for transmutation of plants.



527. THE second rule shall be to bury some few seeds of the herb you would change, amongst other seeds; and then you shall see, whether the juice of those other seeds do not so qualify the earth, as it will alter the seed whereupon you work. As for example; put partly seed amongst onion seed, or lettuce seed amongst partly seed, or basil seed amongst thyme seed; and see the change of taste or otherwise. But you shall do well to put the seed you would change into a little linen cloth, that it mingle not with the foreign seed.

528. THE third rule shall be, the making of some medley or mixture of earth with some other plants bruised or shaven either in leaf or root: as for example, make earth with a mixture of colewort leaves stamped, and set in it artichokes or parsnips; so take earth made with marjoram, or origanum, or wild thyme, bruised or stamped, and set in it fennel seed, *etc.* In which operation the process of nature still will be (as I conceive) not that the herb you work upon should draw the juice of the foreign herb (for that opinion we have formerly rejected) but that there will be a new confection of mould, which perhaps will alter the seed, and yet not to the kind of the former herb.

529. THE fourth rule shall be, to mark what herbs some earths do put forth of themselves; and to take that earth, and to pot it, or to vessel it; and in that to set the seed you would change: as for example, take from under walls, or the like, where nettles put forth in abundance, the earth which you shall there find, without any string or root of the nettles; and pot that earth, and set in it stock-gilly-flowers, or wall-flowers, *etc.* or sow in the seeds of them; and see what the event will be: or take earth that you have prepared to put forth mushrooms of itself (whereof you shall find some instances following) and sow in it purslane seed, or lettuce seed; for in these experiments, it is likely enough that the earth being accustomed to send forth one kind of nourishment, will alter the new seed.

530. THE fifth rule shall be, to make the herb grow contrary to its nature; as to make ground-herbs rise in height: as for example, carry camomile, or wild thyme, or the green strawberry, upon sticks, as you do hops upon poles; and see what the event will be.

531. THE sixth rule shall be, to make plants grow out of the sun or open air; for that is a great mutation in nature, and may induce a change in the seed: as barrel up earth, and sow some seed in it, and put it in the bottom of a pond; or put it in some great hollow tree; try also the sowing of seeds in the bottoms of caves; and pots with seeds sown, hanged up in wells some distance from the water, and see what the event will be.

*Experiments in consort touching the procerity, and lowness, and artificial dwarfing of trees.*

532. IT is certain, that timber trees in coppice woods grow more upright, and more free from under-boughs, than those that stand in the fields: the cause whereof is, for that plants have a natural motion to get to the sun; and besides, they are not glutted with too much nourishment; for that the coppice shareth with them; and repletion ever hindereth stature: lastly, they are kept warm; and that ever in plants helpeth mouting.

533. TREES that are of themselves full of heat (which heat appeareth by their inflammable gums) as firs and pines, mount of themselves in height without side-boughs, till they come towards the top. The cause is partly heat, and partly tenuity of juice, both which send the sap upwards. As for juniper, it is but a shrub, and groweth not big enough in body to maintain a tall tree.

534. IT is reported, that a good strong canvas spread over a tree grafted low, soon after it putteth forth, will dwarf it, and make it spread. The cause is plain; for that all things that grow, will grow as they find room.

535. TREES are generally set of roots or kernels; but if you set them of slips (as of some trees you may, by name the mulberry) some of the slips will take; and those that take (as is reported) will be dwarf trees. The cause is, for that a slip draweth nourishment more weakly than either a root or kernel.

536. ALL plants that put forth their sap hastily, have their bodies not proportionable



portionable to their length; and therefore they are winders and creepers; as ivy, briony, hops, woodbine: whereas dwarfing requireth a slow putting forth, and less vigour of mounting.

*Experiments in consort touching the rudiments of plants, and of the excrescences of plants, or super-plants.*

THE Scripture saith, that Solomon wrote a Natural History, *from the cedar of Libanus, to the moss growing upon the wall*: for so the best translations have it. And it is true that moss is but the rudiment of a plant; and (as it were) the mould of earth or bark.

537. Moss groweth chiefly upon ridges of houses tiled or thatched, and upon the crests of walls: and that moss is of a lightsome and pleasant green. The growing upon slopes is caused, for that moss, as on the one side it cometh of moisture and water, so on the other side the water must but slide, and not stand or pool. And the growing upon tiles, or walls, *etc.* is caused, for that those dried earths, having not moisture sufficient to put forth a plant, do practise germination by putting forth moss; though when, by age, or otherwise, they grow to relent and resolve, they sometimes put forth plants, as wall-flowers. And almost all moss hath here and there little stalks, besides the low thrum.

538. Moss groweth upon alleys, especially such as lie cold, and upon the north; as in divers terrasses: and again, if they be much trodden; or if they were at the first gravelled; for wheresoever plants are kept down, the earth putteth forth moss.

539. Old ground, that hath been long unbroken up, gathereth moss: and therefore husbandmen use to cure their pasture grounds when they grow to moss, by tilling them for a year or two: which also dependeth upon the same cause; for that the more sparing and starving juice of the earth, insufficient for plants, doth breed moss.

540. Old trees are more mossy (far) than young; for that the sap is not so frank as to rise all to the boughs, but tireth by the way, and putteth out moss.

541. FOUNTAINS have moss growing upon the ground about them;

*Muscoli fontes;*

The cause is, for that the fountains drain the water from the ground adjacent, and leave but sufficient moisture to breed moss: and besides, the coldness of the water conduceth to the same.

542. The moss of trees is a kind of hair; for it is the juice of the tree that is excerned, and doth not assimilate. And upon great trees the moss gathereth a figure like a leaf.

543. THE moister sort of trees yield little moss; as we see in asps, poplars, willows, beeches, *etc.* which is partly caused for the reason that hath been given, of the frank putting up of the sap into the boughs; and partly for that the barks of those trees are more close and smooth, than those of oaks and ashes; whereby the moss can the harder issue out.

544. In clay-grounds all fruit-trees grow full of moss, both upon body and boughs; which is caused partly by the coldness of the ground, whereby the plants nourish less; and partly by the toughness of the earth, whereby the sap is shut in, and cannot get up to spread so frankly as it should do.

545. WE have said heretofore, that if trees be hide-bound, they wax less fruitful, and gather moss; and that they are holpen by hacking, *etc.* And therefore, by the reason of contraries, if trees be bound in with cords, or some outward bands, they will put forth more moss: which (I think) happeneth to trees that stand bleak, and upon the cold winds. It would also be tried, whether, if you cover a tree somewhat thick upon the top after his polling, it will not gather more moss. I think also the watering of trees with cold fountain water, will make them grow full of moss.

546. THERE is a moss the perfumeers have, which cometh out of apple trees, that hath an excellent scent. *Quære* particularly for the manner of the growth, and the nature of it. And for this experiment's sake, being a thing of price, I have set down the last experiments how to multiply and call on mosses.

VOL. I.

GGg

NEXT



NEXT unto moss, I will speak of mushrooms; which are likewise an imperfect plant. The mushrooms have two strange properties; the one, that they yield so delicious a meat; the other, that they come up so hastily, as in a night; and yet they are unshewn. And therefore such as are upstarts in state, they call in reproach mushrooms. It must needs be therefore, that they be made of much moisture; and that moisture, fat, gross, and yet somewhat concocted. And (indeed) we find, that mushrooms cause the accident which we call *incubus*, or the mare in the stomach. And therefore the surfeit of them may suffocate and enpoison. And this sheweth, that they are windy; and that windiness is gross and swelling, not sharp or griping. And upon the same reason mushrooms are a venereous meat.

547. It is reported, that the bark of white or red poplar (which are of the moistest of trees) cut small, and cast into furrows well dunged, will cause the ground to put forth mushrooms at all seasons of the year fit to be eaten. Some add to the mixture leaven of bread dissolved in water.

548. It is reported, that if a hilly field where the stubble is standing, be set on fire in a showery season, it will put forth great store of mushrooms.

549. It is reported, that hartshorn, shaven, or in small pieces, mixed with dung and watered, putteth up mushrooms. And we know hartshorn is of a fat and clammy substance: and it may be ox-horn would do the like.

550. It hath been reported, though it be scarce credible, that ivy hath grown out of a stag's horn; which they suppose did rather come from a consecration of the horn upon the ivy, than from the horn itself. There is not known any substance but earth, and the procedures of earth (as tile, stone, *etc.*) that yieldeth any moss or herby substance. There may be trial made of some seeds, as that of fennel-seed, mustard-seed, and rape-seed, put into some little holes made in the horns of stags, or oxen, to see if they will grow.

551. THERE is also another imperfect plant, that (in shew) is like a great mushroom: and it is sometimes as broad as one's hat; which they call a toad's stool: but it is not esculent; and it groweth (commonly) by a dead stub of a tree, and likewise about the roots of rotten trees: and therefore seemeth to take his juice from wood putrefied. Which sheweth, by the way, that wood putrefied yieldeth a frank moisture.

552. THERE is a cake that groweth upon the side of a dead tree, that hath gotten no name, but it is large and of a chestnut colour, and hard and pithy; whereby it should seem, that even dead trees forget not their putting forth; no more than the carcases of mens bodies, that put forth hair and nails for a time.

553. THERE is a cod, or bag, that groweth commonly in the fields; that at the first is hard like a tennis-ball, and white; and after growth of a mushroom colour, and full of light dust upon the breaking: and is thought to be dangerous for the eyes if the powder get into them; and to be good for kibes. Belike it hath a corrosive and fretting nature.

554. THERE is an herb called Jews-ear, that groweth upon the roots and lower parts of the bodies of trees; especially of elders, and sometimes ashes. It hath a strange property; for in warm water it swelleth, and openeth extremely. It is not green, but of a dusky brown colour. And it is used for squinancies and inflammations in the throat; whereby it seemeth to have a mollifying and lenifying virtue.

555. THERE is a kind of spongy excrement, which groweth chiefly upon the roots of the laser-tree; and sometimes upon cedar and other trees. It is very white, and light, and friable; which we call agarick. It is famous in physick for the purging of tough phlegm. And it is also an excellent opener for the liver; but offensive to the stomach: and in taste, it is at the first sweet, and after bitter.

556. WE find no super-plant that is a formed plant, but mistletoe. They have an idle tradition, that there is a bird called a mistel bird, that feedeth upon a seed, which many times she cannot digest, and so expelleth it whole with her excrement: which falling upon a bough of a tree that hath some rift, putteth



reth forth the mistletoe. But this is a fable; for it is not probable, that birds should feed upon that they cannot digest. But allow that, yet it cannot be for other reasons: for first, it is found but upon certain trees; and those trees bear no such fruit, as may allure that bird to sit and feed upon them. It may be, that bird feedeth upon the mistletoe-berries, and so is often found there; which may have given occasion to the tale. But that which maketh an end of the question is, that mistletoe hath been found to put forth under the boughs, and not (only) above the boughs; so it cannot be any thing that falleth upon the bough. Mistletoe groweth chiefly upon crab-trees, apple-trees, sometimes upon hazles, and rarely upon oaks; the mistletoe whereof is counted very medicinal. It is ever green winter and summer; and beareth a white glittering berry: and it is a plant utterly differing from the plant upon which it groweth. Two things therefore may be certainly set down: first, that super-fermentation must be by abundance of sap in the bough that putteth it forth: secondly, that that sap must be such as the tree doth excretn, and cannot assimilate; for else it would go into a bough; and besides, it seemeth to be more fat and unctuous than the ordinary sap of the tree; both by the berry, which is clammy; and by that it continueth green winter and summer, which the tree doth not.

557. THIS experiment of mistletoe may give light to other practices. Therefore trial would be made by ripping of the bough of a crab-tree in the bark; and watering of the wound every day with warm water dunged, to see if it would bring forth mistletoe, or any such like thing. But it were yet more likely to try it with some other watering or anointing, that were not so natural to the tree as water is; as oil, or barna of drink, *etc.* so they be such things as kill not the bough.

558. IT were good to try, what plants would put forth, if they be forbidden to put forth their natural boughs: poll therefore a tree, and cover it some thickness with clay on the top, and see what it will put forth. I suppose it will put forth roots; for so will a cion, being turned down into clay: therefore, in this experiment also, the tree would be closed with somewhat that is not so natural to the plant as clay is. Try it with leather, or cloth, or painting, so it be not hurtful to the tree. And it is certain, that a brake hath been known to grow out of a pollard.

559. A MAN may count the prickles of trees to be a kind of excrecence; for they will never be boughs, nor bear leaves. The plants that have prickles are thorns, black and white; brier, rose, lemon-trees, crab-trees, gooseberry, berry; these have it in the bough: the plants that have prickles in the leaf are, holly, juniper, whin-bush, thistle; nettles also have a small venomous prickle; so hath borage, but harmless. The cause must be hasty putting forth, want of moisture, and the closeness of the bark; for the haste of the spirit to put forth, and the want of nourishment to put forth a bough, and the closeness of the bark, cause prickles in boughs; and therefore they are ever like a *pyramis*, for that the moisture spendeth after a little putting forth. And for prickles in leaves, they come also of putting forth more juice into the leaf than can spread in the leaf smooth, and therefore the leaves otherwise are rough, as borage and nettles are. As for the leaves of holly, they are smooth, but never plain, but as it were with folds, for the same cause.

560. THERE be also plants, that though they have no prickles, yet they have a kind of downy or velvet rind upon their leaves; as rose-campion, stock-gilly-flowers, colts-foot; which down or nap cometh of a subtil spirit, in a soft or fat substance. For it is certain, that both stock-gilly-flowers and rose-campions, stamped, have been applied (with succels) to the wrists of those that have had tertian or quartan agues; and the vapour of colts-foot hath a sanative virtue towards the lungs; and the leaf also is healing in surgery.

561. ANOTHER kind of excrecence is an exudation of plants joined with putrefaction; as we see in oak-apples, which are found chiefly upon the leaves of oaks, and the like upon willows: and country people have a kind of prediction, that if the oak-apple broken be full of worms, it is a sign of a pestilent year; which is a likely thing, because they grow of corruption.



562. THERE is also upon sweet, or other brier, a fine tuft or brush of moss of divers colours; which if you cut, you shall ever find full of little white worms.

*Experiments in consort touching the producing of perfect plants without seed.*

563. IT is certain, that earth taken out of the foundations of vaults and houses, and bottoms of wells, and then put into pots, will put forth sundry kinds of herbs: but some time is required for the germination; for if it be taken but from a fathom deep, it will put forth the first year; if much deeper, not till after a year or two.

564. THE nature of the plants growing out of earth so taken up, doth follow the nature of the mould itself; as if the mould be soft and fine, it putteth forth soft herbs; as grass, plantain, and the like; if the earth be harder and coarser, it putteth forth herbs more rough, as thistles, firs, *etc.*

565. IT is common experience, that where alleys are close gravelled, the earth putteth forth the first year knot grass, and after spire grass. The cause is, for that the hard gravel or pebble at the first laying will not suffer the grass to come forth upright, but turneth it to find his way where it can; but after that the earth is somewhat loosened at the top, the ordinary grass cometh up.

566. IT is reported, that earth being taken out of shady and watery woods some depth, and potted, will put forth herbs of a fat and juicy substance; as penny-wort, purslane, houseleek, penny-royal, *etc.*

567. THE water also doth send forth plants that have no roots fixed in the bottom; but they are less perfect plants, being almost but leaves, and those small ones; such is that we call duck-weed, which hath a leaf no bigger than a thyme leaf, but of a fresher green, and putteth forth a little string into the water far from the bottom. As for the water lily, it hath a root in the ground; and so have a number of other herbs that grow in ponds.

568. IT is reported by some of the ancients, and some modern testimony likewise, that there be some plants that grow upon the top of the sea, being supposed to grow of some concretion of slime from the water, where the sun beateh hot, and where the sea stirreth little. As for *alga marina* (sea weed) and *eryngium* (sea thistle) both have roots; but the sea weed under the water, the sea thistle but upon the shore.

569. THE ancients have noted, that there are some herbs that grow out of snow laid up close together and putrefied, and that they are all bitter; and they name one specially, *flomus*, which we call moth-mullein. It is certain, that worms are found in snow commonly, like earth-worms; and therefore it is not unlike, that it may likewise put forth plants.

570. THE ancients have affirmed, that there are some herbs that grow out of stone; which may be, for that it is certain that toads have been found in the middle of a free-stone. We see also that flints, lying above ground, gather moss; and wall-flowers, and some other flowers, grow upon walls; but whether upon the main brick or stone, or whether out of the lime or chinks, is not well observed: for elders and ashes have been seen to grow out of steeples; but they manifestly grow out of clefts; in so much as when they grow big, they will disjoin the stone. And besides, it is doubtful whether the mortar itself putteth it forth, or whether some seeds be not let fall by birds. There be likewise rock-herbs; but I suppose those are where there is some mould or earth. It hath likewise been found, that great trees growing upon quarries, have put down their root into the stone.

571. IN some mines in Germany, as is reported, there grow in the bottom vegetables; and the work-folks use to say they have magical virtue, and will not suffer men to gather them.

572. THE sea sands seldom bear plants. Whereof the cause is yielded by some of the ancients, for that the sun exhalet the moisture before it can incorporate with the earth, and yield a nourishment for the plant. And it is affirmed also, that sand hath (always) its root in clay; and that there be no veins of sand any great depth within the earth.



573. It is certain, that some plants put forth for a time of their own store, without any nourishment from earth, water, stone, *etc.* of which *vide* the experiment 29.

*Experiments in consort touching foreign plants.*

574. It is reported, that earth that was brought out of the Indies, and other remote countries for ballast of ships, cast upon some grounds in Italy, did put forth foreign herbs, to us in Europe not known; and, that which is more, that of their roots, barks, and seeds, confused together, and mingled with other earth, and well water'd with warm water, there came forth herbs much like the other.

575. PLANTS brought out of hot countries will endeavour to put forth at the same time that they usually do in their own climate; and therefore to preserve them, there is no more required, than to keep them from the injury of putting back by cold. It is reported also, that grain out of the hotter countries translated into the colder, will be more forward than the ordinary grain of the cold country. It is likely that this will prove better in grains than in trees, for that grains are but annual, and so the virtue of the seed is not worn out; whereas in a tree, it is embased by the ground to which it is removed.

576. MANY plants which grow in the hotter countries, being set in the colder, will nevertheless, even in those cold countries, being sown of seeds late in the spring, come up and abide most part of the summer; as we find it, in orange and lemon seeds, *etc.* the seeds whereof sown in the end of April will bring forth excellent sallads, mingled with other herbs. And I doubt not, but the seeds of clove trees, and pepper seeds, *etc.* if they could come hither green enough to be sown, would do the like.

*Experiments in consort touching the seasons in which plants come forth.*

577. THERE be some flowers, blossoms, grains, and fruits, which come more early, and others which come more late in the year. The flowers that come early with us are primroses, violets, anemones, water-daffadillies, *crocus vernus*, and some early tulips. And they are all cold plants; which therefore (as it should seem) have a quicker perception of the heat of the sun increasing than the hot herbs have; as a cold hand will sooner find a little warmth than an hot. And those that come next after, are wall-flowers, cowslips, hyacinths, rosemary flowers, *etc.* and after them, pinks, roses, flower-de-luces, *etc.* and the latest are gilly-flowers, holyoaks, larksfoot, *etc.* The earliest blossoms are, the blossoms of peaches, almonds, cornelians, mezerions, *etc.* and they are of such trees as have much moisture, either watery or oily. And therefore *crocus vernus* also, being an herb that hath an oily juice, putteth forth early; for those also find the sun sooner than the drier trees. The grains are, first rye and wheat; then oats and barley; then pease and beans. For though green pease and beans be eaten sooner, yet the dry ones that are used for horse meat, are ripe last; and it seemeth that the fatter grain cometh first. The earliest fruits are strawberries, cherries, gooseberries, currans; and after them early apples, early pears, apricots, rasps; and after them, damascenes, and most kind of plums, peaches, *etc.* and the latest are apples, wardenes, grapes, nuts, quinces, almonds, sloes, briar-berries, hips, medlars, services, cornelians, *etc.*

578. It is to be noted, that (commonly) trees that ripen latest, blossom soonest; as peaches, cornelians, sloes, almonds, *etc.* and it seemeth to be a work of providence that they blossom so soon; for otherwise they could not have the sun long enough to ripen.

579. THERE be fruits (but rarely) that come twice a year; as some pears, strawberries, *etc.* And it seemeth they are such as abound with nourishment; whereby after one period, before the sun waxeth too weak, they can endure another. The violet also, amongst flowers, cometh twice a year, especially the double white; and that also is a plant full of moisture. Roses come twice, but it is not without cutting, as hath been formerly said.



580. IN Muscovy, though the corn come not up till late spring, yet their harvest is as early as ours. The cause is, for that the strength of the ground is kept in with the snow; and we see with us, that if it be a long winter, it is commonly a more plentiful year: and after those kind of winters likewise, the flowers and corn, which are earlier and later, do come commonly at once, and at the same time; which troubleth the husbandman many times; for you shall have red roses and damask roses come together; and likewise the harvest of wheat and barley. But this happeneth ever, for that the earlier stayeth for the later; and not that the later cometh sooner.

581. THERE be divers fruit-trees in the hot countries, which have blossoms, and young fruit, and ripe fruit, almost all the year, succeeding one another. And it is said the orange hath the like with us, for a great part of summer; and so also hath the fig. And no doubt the natural motion of plants is to have so; but that either they want juice to spend; or they meet with the cold of the winter: and therefore this circle of ripening cannot be but in succulent plants, and hot countries.

582. Some herbs are but annual, and die, root and all, once a year; as borage, lettuce, cucumbers, musk-melons, basil, tobacco, mustard-seed, and all kinds of corn: some continue many years; as hyssop, germander, lavender, fennel, *etc.* The cause of the dying is double; the first is, the tenderness and weakness of the seed, which maketh the period in a small time; as it is in borage, lettuce, cucumbers, corn, *etc.* and therefore none of these are hot. The other cause is, for that some herbs can worse endure cold; as basil, tobacco, mustard-seed. And these have (all) much heat.

*Experiments in consort touching the lasting of herbs and trees.*

583. THE lasting of plants is most in those that are largest of body; as oaks, elm, chestnut, the locust-tree, *etc.* and this holdeth in trees; but in herbs it is often contrary: for borage, colewort, pumpions, which are herbs of the largest size, are of small durance; whereas hyssop, winter-savoury, germander, thyme, sage, will last long. The cause is, for that trees last according to the strength and quantity of their sap and juice; being well munited by their bark against the injuries of the air: but herbs draw a weak juice, and have a soft stalk; and therefore those amongst them which last longest, are herbs of strong smell, and with a sticky stalk.

584. TREES that bear mast, and nuts, are commonly more lasting than those that bear fruits; especially the moister fruits: as oaks, beeches, chestnuts, walnuts, almonds, pine-trees, *etc.* last longer than apples, pears, plums, *etc.* The cause is the fatness and oiliness of the sap; which ever wasteth less than the more watery.

585. TREES that bring forth their leaves late in the year, and cast them likewise late, are more lasting than those that sprout their leaves early, or shed them betimes. The cause is, for that the late coming forth sheweth a moisture more fixed; and the other more loose, and more easily resolved. And the same cause is, that wild trees last longer than garden trees; and in the same kind, those whose fruit is acid, more than those whose fruit is sweet.

586. NOTHING procureth the lasting of trees, bushes, and herbs, so much as often cutting: for every cutting causeth a renovation of the juice of the plant; that it neither goeth so far, nor riseth so faintly, as when the plant is not cut: inso much as annual plants, if you cut them seasonably, and will spare the use of them, and suffer them to come up still young, will last more years than one, as hath been partly touched; such as is lettuce, purslane, cucumber, and the like. And for great trees, we see almost all overgrown trees in church-yards, or near ancient buildings, and the like, are pollards, or dottards, and not trees at their full height.

587. Some experiment would be made, how by art to make plants more lasting than their ordinary period; as to make a stalk of wheat, *etc.* last a whole year. You must ever presuppose, that you handle it so as the winter killeth it not; for we speak only of prolonging the natural period. I conceive that the  
rule



rule will hold, that whatsoever maketh the herb come later than at its time, will make it last longer time: it were good to try it in a stalk of wheat, *etc.* set in the shade, and encompassed with a case of wood, not touching the straw, to keep out open air.

As for the preservation of fruits and plants, as well upon the tree or stalk; as gathered, we shall handle it under the title of conservation of bodies.

*Experiments in consort touching the several figures of plants.*

588. THE particular figures of plants we leave to their descriptions; but some few things in general we will observe. Trees and herbs, in the growing forth of their boughs and branches, are not figured, and keep no order. The cause is, for that the sap being restrained in the rind and bark, breaketh not forth at all (as in the bodies of trees, and stalks of herbs,) till they begin to branch; and then when they make an eruption, they break forth casually, where they find best way in the bark or rind. It is true, that some trees are more scattered in their boughs; as fallow-trees, warden-trees, quince-trees, medlar-trees, lemon-trees, *etc.* some are more in the form of a pyramis, and come almost to todd; as the pear-tree (which the criticks will have to borrow his name of *πύργος*, fire) orange-trees, fir-trees, service-trees, lime-trees, *etc.* and some are more spread and broad; as beeches, hornbeam, *etc.* the rest are more indifferent. The cause of scattering the boughs, is the hasty breaking forth of the sap; and therefore those trees rise not in a body of any height, but branch near the ground. The cause of the pyramis is the keeping in of the sap long before it branch; and the spending of it, when it beginneth to branch, by equal degrees. The spreading is caused by the carrying up of the sap plentifully, without expence; and then putting it forth speedily and at once.

589. THERE be divers herbs, but no trees, that may be said to have some kind of order in the putting forth of their leaves: for they have joints or knuckles, as it were stops in their germination; as have gilly-flowers, pinks, fennel, corn, reeds, and canes. The cause whereof is, for that the sap ascendeth unequally, and doth (as it were) tire and stop by the way. And it seemeth they have some closeness and hardness in their stalk, which hindreth the sap from going up, until it hath gathered into a knot, and so is more urged to put forth. And therefore they are most of them hollow when the stalk is dry, as fennel-stalk, stubble, and canes.

590. FLOWERS have (all) exquisite figures; and the flower numbers are (chiefly) five, and four; as in primroses, briar roses, single musk roses, single pinks, and gilly-flowers, *etc.* which have five leaves: lilies, flower-de-luces, borage, bugloss, *etc.* which have four leaves. But some put forth leaves not numbered; but they are ever small ones; as marygolds, trefoils, *etc.* We see also, that the sockets and supporters of flowers are figured; as in the five brethren of the rose, sockets of gilly-flowers, *etc.* Leaves also are all figured; some round; some long; none square; and many jagged on the sides; which leaves of flowers seldom are. For I account the jagging of pinks and gilly-flowers, to be like the inequality of oak leaves, or vine leaves, or the like: but they seldom or never have any small curls.

*Experiments in consort touching some principal differences in plants.*

591. OF plants, some few put forth their blossoms before their leaves; as almonds, peaches, cornelians, black thorn, *etc.* but most put forth some leaves before their blossoms; as apples, pears, plums, cherries, white thorn, *etc.* The cause is, for that those that put forth their blossoms first, have either an acute and sharp spirit (and therefore, commonly, they all put forth early in the spring, and ripen very late; as most of the particulars before mentioned) or else an oily juice, which is apter to put out flowers than leaves.

592. OF plants, some are green all winter; others cast their leaves. There are green all winter, holly, ivy, box, fir, yew, cypress, juniper, bays, rosemary, *etc.* The cause of the holding green, is the close and compact substance of their leaves, and the pedicles of them. And the cause of that again is either the tough and



and viscous juice of the plant; or the strength and heat thereof. Of the first sort is holly; which is of so viscous a juice, as they make birdlime of the bark of it. The stalk of ivy is tough, and not fragile, as we see in other small twigs dry. Fir yieldeth pitch. Box is a salt and heavy wood, as we see it in bowls. Yew is a strong and tough wood, as we see it in bows. Of the second sort is juniper, which is a wood odorate; and maketh a hot fire. Bays is likewise a hot and aromatical wood; and so is rosemary for a shrub. As for the leaves, their density appeareth, in that either they are smooth and shining, as in bays, holly, ivy, box, *etc.* or in that they are hard and spiry, as in the rest. And trial would be made of grafting of rosemary, and bays, and box, upon a holly-stock; because they are plants that come all winter. It were good to try it also with grafts of other trees, either fruit trees, or wild trees; to see whether they will not yield their fruit, or bear their leaves later and longer in the winter; because the sap of the holly putteth forth most in the winter. It may be also a mezerion-tree, grafted upon a holly, will prove both an earlier and a greater tree.

593. THERE be some plants that bear no flower, and yet bear fruit: there be some that bear flowers and no fruit: there be some that bear neither flowers nor fruit. Most of the great timber trees (as oaks, beeches, *etc.*) bear no apparent flowers; some few (likewise) of the fruit trees; as mulberry, walnut, *etc.* and some shrubs (as juniper, holly, *etc.*) bear no flowers. Divers herbs also bear seeds (which is as the fruit) and yet bear no flowers; as purslane, *etc.* Those that bear flowers and no fruit are few; as the double cherry, the fallow, *etc.* But for the cherry, it is doubtful whether it be not by art or culture; for if it be by art, then trial would be made, whether apple, and other fruits blossoms, may not be doubled. There are some few that bear neither fruit nor flower; as the elm, the poplars, box, brakes, *etc.*

594. THERE be some plants that shoot still upwards, and can support themselves; as the greatest part of trees and plants: there be some other that creep along the ground; or wind about other trees or props, and cannot support themselves; as vines, ivy, briar, briony, woodbines, hops, climatis, canomile, *etc.* The cause is (as hath been partly touched) for that all plants (naturally) move upwards; but if the sap put up too fast, it maketh a slender stalk, which will not support the weight: and therefore these latter sort are all swift and hasty corners.

*Experiments in consort touching all manner of composts, and helps of ground.*

595. THE first and most ordinary help is stercoration. The sheeps dung is one of the best; and next the dung of kine: and thirdly, that of horses, which is held to be somewhat too hot unless it be mingled. That of pigeons for a garden, or a small quantity of ground, excelleth. The ordering of dung is, if the ground be arable, to spread it immediately before the ploughing and sowing; and so to plough it in: for if you spread it long before, the sun will draw out much of the fatness of the dung: if the ground be grazing ground, to spread it somewhat late towards winter; that the sun may have the less power to dry it up. As for special composts for gardens (as a hot bed, *etc.*) we have handled them before.

596. THE second kind of compost is, the spreading of divers kinds of earths; as marle, chalk, sea sand, earth upon earth, pond earth; and the mixtures of them. Marle is thought to be the best, as having most fatness; and not heating the ground too much. The next is sea sand, which (no doubt) obtaineth a special virtue by the salt: for salt is the first rudiment of life. Chalk over-heatech the ground a little; and therefore is best upon cold clay-grounds, or moist grounds: but I heard a great husband say, that it was a common error, to think that chalk helpeth arable grounds, but helpeth not grazing grounds; whereas (indeed) it helpeth grass as well as corn: but that which breedeth the error is, because after the chalking of the ground they wear it out with many crops without rest; and then (indeed) afterwards it will bear little grass, because the ground is tired out. It were good to try the laying of chalk upon arable grounds a little while before ploughing; and to plough it in as they do the dung; but then it must be friable first by rain or lying. As for earth, it composteth itself; for I knew a great garden that had a field (in a manner) poured upon it; and it did bear fruit excellently the



first year of the planting: for the surface of the earth is ever the fruitfullest. And earth so prepared hath a double surface. But it is true, as I conceive, that such earth as hath salt-petre bred in it, if you can procure it without too much charge, doth excel. The way to hasten the breeding of salt-petre, is to forbid the sun, and the growth of vegetables. And therefore if you make a large hovel, thatched, over some quantity of ground; nay, if you do but plank the ground over, it will breed salt-petre. As for pond earth, or river earth, it is a very good compost; especially if the pond have been long uncleansed, and so the water be not too hungry: and I judge it will be yet better if there be some mixture of chalk.

597. THE third help of ground is, by some other substances that have a virtue to make ground fertile, though they be not merely earth: wherein ashes excel; inasmuch as the countries about *Ætna* and *Vesuvius* have a kind of amends made them, for the mischief the irruptions (many times) do, by the exceeding fruitfulness of the soil, caused by the ashes scattered about. Soot also, though thin spread in a field or garden, is tried to be a very good compost. For salt, it is too costly; but it is tried, that mingled with seed-corn, and sown together, it doth good: and I am of opinion, that chalk in powder, mingled with seed-corn, would do good; perhaps as much as chalking the ground all over. As for the sleeping of the seeds in several mixtures with water to give them vigour, or watering grounds with compost water, we have spoken of them before.

598. THE fourth help of ground is, the suffering of vegetables to die into the ground, and so to fatten it; as the stubble of corn, especially pease. Brakes cast upon the ground in the beginning of winter, will make it very fruitful. It were good (also) to try whether leaves of trees swept together, with some chalk and dung mixed, to give them more heart, would not make a good compost; for there is nothing lost, so much as leaves of trees; and as they lie scattered, and without mixture, they rather make the ground sour than otherwise.

599. THE fifth help of ground is, heat and warmth. It hath been anciently practised to burn heath, and ling, and sedge, with the vantage of the wind, upon the ground. We see that warmth of walls and enclosures mendeth ground: we see also, that lying open to the south mendeth ground: we see again, that the foldings of sheep help ground, as well by their warmth, as by their compost: and it may be doubted, whether the covering of the ground with brakes in the beginning of the winter (whereof we spake in the last experiment) helpeth it not, by reason of the warmth. Nay, some very good husbands do suspect, that the gathering up of flints in stony ground, and laying them on heaps (which is much used) is no good husbandry, for that they would keep the ground warm.

600. THE sixth help of ground is by watering, and irrigation; which is in two manners; the one by letting in and shutting out waters at seasonable times: for water, at some seasons, and with reasonable stay, doth good; but at some other seasons, and with too long stay, doth hurt: and this serveth only for meadows which are along some river. The other way is, to bring water from some hanging grounds where there are springs into the lower grounds, carrying it in some long furrows; and from those furrows, drawing it traverse to spread the water. And this maketh an excellent improvement, both for corn and grass. It is the richer, if those hanging grounds be fruitful, because it washeth off some of the fatness of the earth; but howsoever it profiteth much. Generally, where there are great overflows in fens, or the like, the drowning of them in the winter maketh the summer following more fruitful: the cause may be, for that it keepeth the ground warm and nourisheth it. But the fen-men hold, that the sewers must be kept so, as the water may not stay too long in the spring till the weeds and sedge be grown up; for then the ground will be like a wood, which keepeth out the sun, and so continueth the wet; whereby it will never graze (to purpose) that year. Thus much for irrigation. But for avoidances, and drainings of water, where there is too much, and the helps of ground in that kind, we shall speak of them in another place.



## NATURAL HISTORY.

## CENTURY VII.

*Experiments in consort touching the affinities and differences between plants and inanimate bodies.*

601. **T**HE differences between animate and inanimate bodies, we shall handle fully under the title of life, and living spirits, and powers. We shall therefore make but a brief mention of them in this place. The main differences are two. All bodies have spirits, and pneumatical parts within them; but the main differences between animate and inanimate, are two: the first is, that the spirits of things animate are all continued with themselves, and are branched in veins, and secrete canals, as blood is: and in living creatures, the spirits have not only branches, but certain cells or seats, where the principal spirits do reside, and whereunto the rest do resort: but the spirits in things inanimate are shut in, and cut off by the tangible parts, and are not pervious one to another, as air is in snow. The second main difference is, that the spirits of animate bodies are all in some degree (more or less) kindled and inflamed; and have a fine commixture of flame, and an aerial substance. But inanimate bodies have their spirits no whit inflamed, or kindled. And this difference consisteth not in the heat or coolness of spirits; for cloves and other spices, *naphtha* and *petroleum*, have exceeding hot spirits (hotter a great deal than oil, wax, or tallow, *etc.*) but not inflamed. And when any of those weak and temperate bodies come to be inflamed, then they gather a much greater heat than others have un-inflamed, besides their light and motion, *etc.*

602. THE differences, which are secondary, and proceed from these two radical differences, are, first, plants are all figurate and determinate, which inanimate bodies are not; for look how far the spirit is able to spread and continue itself, so far goeth the shape or figure, and then is determined. Secondly, plants do nourish; inanimate bodies do not: they have an accretion, but no alimentation. Thirdly, plants have a period of life, which inanimate bodies have not. Fourthly, they have a succession and propagation of their kind, which is not in bodies inanimate.

603. THE differences between plants, and metals or fossils, besides those four before-mentioned (for metals I hold inanimate) are these: first, metals are more durable than plants: secondly, they are more solid and hard: thirdly, they are wholly subterrany; whereas plants are part above earth, and part under earth.

604. THERE be very few creatures that participate of the nature of plants and metals both; coral is one of the nearest of both kinds: another is vitriol, for that is aptest to sprout with moisture.

605. ANOTHER special affinity is between plants and mould or putrefaction: for all putrefaction (if it dissolve not in arefaction) will in the end issue into plants, or living creatures bred of putrefaction. I account moss, and mushrooms, and agarick, and other of those kinds, to be but moulds of the ground, walls, and trees, and the like. As for flesh, and fish, and plants themselves, and a number of other things, after a mouldiness, or rottenness, or corrupting, they will fall to breed worms. These putrefactions, which have affinity with plants, have this difference from them; that they have no succession or propagation, though they nourish, and have a period of life, and have likewise some figure.

606. I LEFT once by chance a citron cut, in a close room, for three summer months



months that I was absent, and at my return there were grown forth, out of the pith cut, tufts of hairs an inch long, with little black heads, as if they would have been some herb.

*Experiments in consort touching the affinities and differences of plants and living creatures, and the confiners and participles of them.*

607. THE affinities and differences between plants and living creatures are these that follow. They have both of them spirits continued, and branched, and also inflamed. But first in living creatures, the spirits have a cell or seat, which plants have not; as was also formerly said. And secondly, the spirits of living creatures hold more of flame than the spirits of plants do. And these two are the radical differences. For the secondary differences, they are as follow. First, plants are all fixed to the earth, whereas all living creatures are severed, and of themselves. Secondly, living creatures have local motion, plants have not. Thirdly, living creatures nourish from their upper parts, by the mouth chiefly; plants nourish from below, namely from the roots. Fourthly, plants have their seed and seminal parts uppermost; living creatures have them lowermost: and therefore it was said, not elegantly alone, but philosophically; *Homo est planta inversa*; Man is like a plant turned upwards: for the root in plants is as the head in living creatures. Fifthly, living creatures have a more exact figure than plants. Sixthly, living creatures have more diversity of organs within their bodies, and (as it were) inward figures, than plants have. Seventhly, living creatures have sense, which plants have not. Eighthly, living creatures have voluntary motion, which plants have not.

608. For the difference of sexes in plants, they are oftentimes by name distinguished; as male-piony, female-piony; male-rosemary, female-rosemary; holly, she-holly, *etc.* but generation by copulation (certainly) extendeth not to plants. The nearest approach of it is between the he-palm and the she-palm, which (as they report) if they grow near, incline the one to the other; inso-much as (that which is more strange) they doubt not to report, that to keep the trees upright from bending, they tie ropes or lines from the one to the other, that the contact might be enjoyed by the contact of a middle body. But this may be feigned, or at least amplified. Nevertheless, I am apt enough to think, that this same *binarium* of a stronger and a weaker, like unto masculine and feminine, doth hold in all living bodies. It is confounded sometimes; as in some creatures of putrefaction, wherein no marks of distinction appear: and it is doubled sometimes, as in hermaphrodites: but generally there is a degree of strength in most species.

609. THE participles or confiners between plants and living creatures, are such chiefly as are fixed, and have no local motion of remove, though they have a motion in their parts; such as are cisterns, cockles, and such like. There is a fabulous narration, that in the northern countries there should be an herb that groweth in the likeness of a lamb, and feedeth upon the grafs, in such sort as it will bare the grafs round about. But I suppose that the figure maketh the fable; for so, we see, there be bee-flowers, *etc.* And as for the grafs, it seemeth the plant having a great stalk and top doth prey upon the grafs a good way about, by drawing the juice of the earth from it.

*Experiments promiscuous touching plants.*

610. THE Indian fig boweth its roots down so low in one year, as of itself it taketh root again; and so multiplieth from root to root, making of one tree a kind of wood. The cause is the plenty of the sap, and the softness of the stalk, which maketh the bough, being over-loaden, and not stiffly upheld, weigh down. It hath leaves as broad as a little target, but the fruit no bigger than beans. The cause is, for that the continual shade increaseth the leaves, and abateth the fruit, which nevertheless is of a pleasant taste. And that (no doubt) is caused by the suppleness and gentleness of the juice of that plant, being that which maketh the boughs also so flexible.

611. IT is reported by one of the ancients, that there is a certain Indian tree, having



having few but very great leaves, three cubits long and two broad; and that the fruit, being of good taste, groweth out of the bark. It may be, there be plants that pour out the sap so fast, as they have no leisure either to divide into many leaves, or to put forth stalks to the fruit. With us trees (generally) have small leaves in comparison. The fig hath the greatest; and next it the vine, mulberry, and sycamore; and the least are those of the willow, birch, and thorn. But there be found herbs with far greater leaves than any tree; as the burr, gourd, cucumber, and colewort. The cause is (like to that of the Indian fig) the hasty and plentiful putting forth of the sap.

612. THERE be three things in use for sweetness; sugar, honey, manna. For sugar, to the ancients it was scarce known, and little used. It is found in canes: *Sugarcæ*, whether to the first knuckle, or further up? And whether the very bark of the cane itself do yield sugar, or no? For honey, the bee maketh it, or gathereth it; but I have heard from one that was industrious in husbandry, that the labour of the bee is about the wax; and that he hath known in the beginning of May, honey-combs empty of honey; and within a fortnight, when the sweet dews fall, filled like a cellar. It is reported also by some of the ancients, that there is a tree called Occhus, in the valley of Hyrcania, that distilleth honey in the mornings. It is not unlike that the sap and tears of some trees may be sweet. It may be also, that some sweet juices, fit for many uses, may be concocted out of fruits, to the thickness of honey, or perhaps of sugar; the likeliest are raisins of the sun, figs, and currans: the means may be enquired.

613. THE ancients report of a tree by the Persian sea, upon the shore-sands, which is nourished with the salt water; and when the tide ebbereth, you shall see the roots as it were bare without bark (being as it seemeth corroded by the salt) and grasping the sands like a crab; which nevertheless beareth a fruit. It were good to try some hard trees, as a service-tree, or fir-tree, by setting them within the sands.

614. THERE be of plants which they use for garments, these that follow: hemp, flax, cotton, nettles (whereof they make nettle cloth) *sericum*, which is a growing silk; they make also cables of the bark of lime-trees. It is the stalk that maketh the filaceous matter commonly; and, sometimes the down that groweth above.

615. THEY have in some countries a plant of a rosy colour, which shutteth in the night, openeth in the morning, and openeth wide at noon; which the inhabitants of those countries say is a plant that sleepeth. There be sleepers enough then; for almost all flowers do the like.

616. Some plants there are, but rare, that have a mossy or downy root; and likewise that have a number of threads, like beards; as mandrakes; whereof witches and impostures make an ugly image, giving it the form of a face at the top of the root, and leaving those strings to make a broad beard down to the foot. Also there is a kind of nard in Crete (being a kind of *phru*) that hath a root hairy, like a rough-footed dove's foot. So as you may see, there are of roots, bulbous roots, fibrous roots, and hirsute roots. And, I take it, in the bulbous, the sap hasteneth most to the air and sun; in the fibrous, the sap delighteth more in the earth, and therefore putteth downward; and the hirsute is a middle between both, that besides the putting forth upwards and downwards, putteth forth in round.

617. THERE are some tears of trees, which are combed from the beards of goats: for when the goats bite and crop them, especially in the mornings, the dew being on, the tear cometh forth, and hangeth upon their beards: of this sort is some kind of *ladanum*.

618. THE irrigation of the plane-tree by wine, is reported by the ancients to make it fruitful. It would be tried likewise with roots; for upon seeds it worketh no great effects.

619. THE way to carry foreign roots a long way, is to vessel them close in earthen vessels. But if the vessels be not very great, you must make some holes in the bottom, to give some refreshment to the roots; which otherwise (as it seemeth) will decay and suffocate.



620. THE ancient cinnamon was, of all other plants, while it grew, the driest; and those things which are known to comfort other plants, did make that more steril; for in flowers it prospered worst: it grew also amongst bushes of other kinds, where commonly plants do not thrive; neither did it love the sun. There might be one cause of all those effects; namely, the sparing nourishment which that plant required. *Quære*, how far *cassia*, which is now the substitute of cinnamon, doth participate of these things.

621. It is reported by one of the ancients, that *cassia*, when it is gathered, is put into the skins of beasts newly flayed; and that the skins corrupting and breeding worms, the worms do devour the pith and marrow of it, and so make it hollow; but meddle not with the bark, because to them it is bitter.

622. THERE were in ancient time vines of far greater bodies than we know any; for there have been cups made of them, and an image of Jupiter. But it is like they were wild vines; for the vines that they use for wine, are so often cut, and so much digged and dressed, that their sap spendeth into the grapes, and so the stalk cannot increase much in bulk. The wood of vines is very durable, without rotting. And that which is strange, though no tree hath the twigs, while they are green, so brittle, yet the wood dried is extreme tough; and was used by the captains of armies amongst the Romans for their cudgels.

623. It is reported, that in some places vines are suffered to grow like herbs, spreading upon the ground; and that the grapes of those vines are very great. It were good to make trial, whether plants that use to be borne up by props, will not put forth greater leaves and greater fruits if they be laid along the ground; as hops, ivy, woodbine, *etc.*

624. QUINCES, or apples, *etc.* if you will keep them long, drown them in honey; but because honey (perhaps) will give them a taste over-luscious, it were good to make trial in powder of sugar, or in syrup of wine, only boiled to height. Both these would likewise be tried in oranges, lemons, and pomegranates; for the powder of sugar, and syrup of wine, will serve for more times than once.

625. THE conservation of fruit would be also tried in vessels filled with fine sand, or with powder of chalk; or in meal and flour; or in dust of oak wood; or in mill.

626. SUCH fruits as you appoint for long keeping, you must gather before they be full ripe; and in a fair and dry day towards noon; and when the wind bloweth not south; and when the moon is under the earth, and in decrease.

627. TAKE grapes, and hang them in an empty vessel well stopp'd; and set the vessel not in a cellar, but in some dry place; and it is said they will last long. But it is reported by some, they will keep better in a vessel half full of wine, so that the grapes touch not the wine.

628. It is reported, that the preserving of the stalk helpeth to preserve the grape; especially if the stalk be put into the pith of elder, the elder not touching the fruit.

629. It is reported by some of the ancients, that fruit put in bottles, and the bottles let down into wells under water, will keep long.

630. OF herbs and plants, some are good to eat raw; as lettuce, endive, purslane, tarragon, cresses, cucumbers, musk-melons, radish, *etc.* others only after they are boiled, or have passed the fire; as parsley, clary, sage, parsnips, turnips, asparagus, artichokes (though they also being young are eaten raw;) but a number of herbs are not esculent at all; as wormwood, grass, green corn, centaury, hyssop, lavender, balm, *etc.* The causes are, for that the herbs that are not esculent, do want the two tastes in which nourishment resteth; which are fat and sweet; and have (contrariwise) bitter and over-strong tastes, or a juice so crude, as cannot be ripened to the degree of nourishment. Herbs and plants that are esculent raw, have fatness, or sweetness (as all esculent fruits;) such are onions, lettuce, *etc.* But then it must be such a fatness (for as for sweet things, they are in effect always esculent) as is not over-gross, and loading of the stomach: for parsnips and leeks have fatness; but it is too gross and heavy without boiling. It must be also in a substance somewhat tender; for we see wheat, barley, artichokes, are no good nourishment till they have



passed the fire; but the fire doth ripen, and maketh them soft and tender, and so they become esculent. As for radish and tarragon, and the like, they are for condiments, and not for nourishment. And even some of those herbs which are not esculent, are notwithstanding poculent; as hops, broom, *etc.* *Quære*, what herbs are good for drink besides the two aforementioned; for that it may (perhaps) ease the charge of brewing, if they make beer to require less malt, or make it last longer.

631. PARTS fit for the nourishment of man in plants are, seeds, roots, and fruits; but chiefly seeds and roots. For leaves, they give no nourishment at all, or very little: no more do flowers, or blossoms, or stalks. The reason is, for that roots, and seeds, and fruits (in as much as all plants consist of an oily and watery substance commixed) have more of the oily substance; and leaves, flowers, *etc.* of the watery. And secondly, they are more concocted; for the root which continueth ever in the earth, is still concocted by the earth; and fruits and grains (we see) are half a year or more in concocting; whereas leaves are out and perfect in a month.

632. PLANTS (for the most part) are more strong both in taste and smell in the seed, than in the leaf and root. The cause is, for that in plants that are not of a fierce and eager spirit, the virtue is encreased by concoction and maturation, which is ever most in the seed; but in plants that are of a fierce and eager spirit, they are stronger whilst the spirit is inclosed in the root; and the spirits do but weaken and dissipate when they come to the air and sun; as we see it in onions, garlick, dragon, *etc.* Nay, there be plants that have their roots very hot and aromatical, and their seeds rather insipid; as ginger. The cause is (as was touched before) for that the heat of those plants is very dissipable; which under the earth is contained and held in; but when it cometh to the air it exaleth.

633. THE juices of fruits are either watery or oily. I reckon among the watery, all the fruits out of which drink is expressed; as the grape, the apple, the pear, the cherry, the pomegranate, *etc.* And there are some others which, though they be not in use for drink, yet they appear to be of the same nature; as plums, services, mulberries, rasps, oranges, lemons, *etc.* and for those juices that are so fleshy, as they cannot make drink by expression, yet (perhaps) they may make drink by mixture of water;

*Poculique admixtis inhiantur vitæ sordibus.*

And it may be hips and briar-berries would do the like. Those that have oily juices, are, olives, almonds, nuts of all sorts, pine-apples, *etc.* and their juices are all inflammable. And you must observe also, that some of the watery juices, after they have gathered spirit, will burn and inflame; as wine. There is a third kind of fruit that is sweet, without either sharpness or oiliness: such as is the fig and the date.

634. IT hath been noted, that most trees, and specially those that bear mast, are fruitful but once in two years. The cause (no doubt) is, the expence of sap; for many orchard trees, well cultured, will bear divers years together.

635. THERE is no tree, which besides the natural fruit, doth bear so many bastard fruits as the oak doth: for besides the acorn, it beareth galls, oak apples, and certain oak nuts, which are inflammable; and certain oak berries, sticking close to the body of the tree without stalk. It beareth also mistletoe, though rarely. The cause of all these may be, the closeness and solidness of the wood, and pith of the oak; which maketh several juices find several eruptions. And therefore if you will devise to make any super-plants, you must ever give the sap plentiful rising and hard issue.

636. THERE are two excrecences which grow upon trees; both of them in the nature of mushrooms: the one the Romans called *boletus*; which groweth upon the roots of oaks; and was one of the dainties of their table; the other is medicinal, that is called agarick (whereof we have spoken before) which groweth upon the tops of oaks; though it be affirmed by some, that it groweth also at the roots. I do conceive, that many excrecences of trees grow chiefly where the tree is dead or faded; for that the natural sap of the tree corrupteth into some preternatural substance.



637. THE greater part of trees bear most and best on the lower boughs; as oaks, figs, walnuts, pears, *etc.* but some bear best on the top boughs; as crabs, *etc.* Those that bear best below, are such as shade doth more good to than hurt. For generally all fruits bear best lowest; because the sap tireth not, having but a short way: and therefore in fruits spread upon walls, the lowest are the greatest, as was formerly said: so it is the shade that hindereth the lower boughs; except it be in such trees as delight in shade; or at least bear it well. And therefore they are either strong trees, as the oak; or else they have large leaves, as the walnut and fig; or else they grow in pyramids, as the pear. But if they require very much sun, they bear best on the top; as it is in crabs, apples, plums, *etc.*

638. THERE be trees that bear best when they begin to be old; as almonds, pears, vines, and all trees that give mast. The cause is, for that all trees that bear mast, have an oily fruit; and young trees have a more watery juice, and less concocted: and of the same kind also is the almond. The pear likewise, though it be not oily, yet it requireth much sap, and well concocted; for we see it is a heavy fruit and solid; much more than apples, plums, *etc.* As for the vine, it is noted, that it beareth more grapes when it is young; but grapes that make better wine when it is old; for that the juice is better concocted: and we see, that wine is inflammable; so as it hath a kind of oiliness. But the most part of trees, amongst which are apples, plums, *etc.* bear best when they are young.

639. THERE be plants that have a milk in them when they are cut; as figs, old lettuce, sow-thistles, spurge, *etc.* The cause may be an inception of putrefaction: for those milks have all an acrimony; though one would think they should be lenitive. For if you write upon paper with the milk of the fig, the letters will not be seen, until you hold the paper before the fire, and then they wax brown; which sheweth that it is a sharp or fretting juice: lettuce is thought poisonous, when it is so old as to have milk; spurge is a kind of poison in itself; and as for sow-thistles, though coney eat them, yet sheep and cattle will not touch them: and besides, the milk of them rubbed upon warts, in short time weareth them away; which sheweth the milk of them to be corrosive. We see also, that wheat and other corn sown, if you take them forth of the ground before they sprout, are full of milk; and the beginning of germination is ever a kind of putrefaction of the seed. Euphorbium also hath a milk, though not very white, which is of a great acrimony: and salladine hath a yellow milk, which hath likewise much acrimony; for it cleanseth the eyes. It is good also for cataracts.

640. MUSHROOMS are reported to grow, as well upon the bodies of trees, as upon their roots, or upon the earth; and especially upon the oak. The cause is, for that strong trees are towards such excrescences in the nature of earth; and therefore put forth moss, mushrooms, and the like.

641. THERE is hardly found a plant that yieldeth a red juice in the blade or ear; except it be the tree that beareth *sanguis draconis*; which groweth (chiefly) in the island Socotra: the herb amaranthus (indeed) is red all over; and brass is red in the wood: and so is red sanders. The tree of the *sanguis draconis* groweth in the form of a sugar loaf. It is like the sap of that plant concocted in the body of the tree. For we see that grapes and pomegranates are red in the juice, but are green in the tear: and this maketh the tree of *sanguis draconis* lesser towards the top; because the juice hasteneth not up; and besides, it is very astringent; and therefore of slow motion.

642. It is reported, that sweet moss, besides that upon the apple trees, groweth likewise (sometimes) upon poplars; and yet (generally) the poplar is a smooth tree of bark, and hath little moss. The moss of the larix-tree burneth also sweet, and sparkleth in the burning. *Quære* of the mosses of odorate trees; as cedar, cypresses, *hignum aloë*, *etc.*

643. THE death that is most without pain, hath been noted to be upon the taking of the potion of hemlock; which in humanity was the form of execution of capital offenders in Athens. The poison of the asp, that Cleopatra used, hath some affinity with it. The cause is, for that the torments of death are chiefly raised by the stife of the spirits; and these vapours quench the spirits by degrees; like to the death of an extreme old man. I conceive it is less painful than *opium*, because *opium* hath parts of heat mixed.



644. THERE be fruits that are sweet before they be ripe, as myrobalanes; so fennel seeds are sweet before they ripen, and after grow spicy. And some never ripen to be sweet; as tamarinds, berries, crabs, flocs, *etc.* The cause is, for that the former kind have much and subtle heat, which causeth early sweetness; the latter have a cold and acid juice, which no heat of the sun can sweeten. But as for the myrobalane, it hath parts of contrary natures; for it is sweet and yet astringent.

645. THERE be few herbs that have a salt taste; and contrariwise all blood of living creatures hath a saltness. The cause may be, for that salt, though it be the rudiment of life, yet in plants the original taste remaineth not; for you shall have them bitter, sour, sweet, biting, but seldom salt, but in living creatures, all those high tastes may happen to be (sometimes) in the humours, but are seldom in the flesh or substance; because it is of a more oily nature; which is not very susceptible of those tastes; and the saltness itself of blood is but a light and secret saltness: and even among plants, some do participate of saltness, as *alga marina*, samphire, scurvy-grass, *etc.* And they report, there is in some of the Indian seas a swimming plant, which they call *saigazus*, spreading over the sea in such sort, as one would think it were a meadow. It is certain, that out of the ashes of all plants they extract a salt which they use in medicines.

646. It is reported by one of the ancients, that there is an herb growing in the water, called *lincoffis*, which is full of prickles: this herb putteth forth another small herb out of the leaf; which is imputed to some moisture that is gathered between the prickles, which putrefied by the sun germinateth. But I remember also I have seen, for a great rarity, one rose grow out of another like honey-suckles, that they call top and top-gallants.

647. BARLEY (as appeareth in the malting) being steeped in water three days, and afterwards the water drained from it, and the barley turned upon a dry floor, will sprout half an inch long at least: and if it be let alone, and not turned, much more; until the heart be out. Wheat will do the same. Try it also with pease and beans. This experiment is not like that of the orpine, and semper-vive; for there it is of the old store, for no water is added; but here it is nourished from the water. The experiment would be farther driven: for it appeareth already, by that which hath been said, that earth is not necessary to the first sprouting of plants; and we see that rose buds set in water will blow: therefore try whether the sprouts of such grains may not be raised to a farther degree, as to an herb, or flower, with water only, or some small commixture of earth: for if they will, it should seem by the experiments before, both of the malt and of the roses, that they will come far faster on in water than in earth; for the nourishment is easier drawn out of water, than out of earth. It may give some light also, that drink infused with flesh, as that with the capon, *etc.* will nourish faster and easier than meat and drink together. Try the same experiment with roots as well as with grains: as for example, take a turnip, and steep it a while, and then dry it, and see whether it will sprout.

648. MALT in the drenching will swell; and that in such a manner, as after the putting forth in sprouts, and the drying upon the kiln, there will be gained at least a bushel in eight, and yet the sprouts are rubbed off; and there will be a bushel of dust besides the malt: which I suppose to be, not only by the loose and open lying of the parts, but by some addition of substance drawn from the water in which it was steeped.

649. MALT gathereth a sweetness to the taste, which appeareth yet more in the wort. The dulcoration of things is worthy to be tried to the full; for that dulcoration importeth a degree to nourishment: and the making of things inalimental to become alimental, may be an experiment of great profit for making new victual.

650. Most seeds in the growing, leave their husk or rind about the root; but the onion will carry it up, that it will be like a cap upon the top of the young onion. The cause may be, for that the skin or husk is not easy to break; as we see by the pilling of onions, what a holding substance the skin is.

651. PLANTS, that have curled leaves, do all abound with moisture; which cometh



cometh so fast on, as they cannot spread themselves plain, but must needs gather together. The weakest kind of curling is roughness; as in clay and burr. The second is curling on the sides; as in lettuce, and young cabbage: and the third is folding into an head; as in cabbage full grown, and cabbage-lettuce.

652. It is reported, that fir and pine, especially if they be old and putrefied, though they shine not as some rotten woods do, yet in the sudden breaking they will sparkle like hard sugar.

653. The roots of trees do (some of them) put downwards deep into the ground; as the oak, pine, fir, *etc.* Some spread more towards the surface of the earth; as the ash, cypress-tree, olive, *etc.* The cause of this latter may be, for that such trees as love the sun, do not willingly descend far into the earth; and therefore they are (commonly) trees that shoot up much; for in their body, their desire of approach to the sun maketh them spread the less. And the same reason under ground, to avoid recesses from the sun, maketh them spread the more. And we see it cometh to pass in some trees which have been planted too deep in the ground, that for love of approach to the sun, they forsake their first root, and put out another more towards the top of the earth. And we see also, that the olive is full of oily juice; and ash maketh the best fire; and cypress is an hot tree. As for the oak, which is of the former sort, it loveth the earth; and therefore groweth slowly. And for the pine and fir likewise, they have so much heat in themselves, as they need less the heat of the sun. There be herbs also that have the same difference; as the herb they call *mosus diaboli*; which putteth the root down so low, as you cannot pull it up without breaking; which gave occasion to the name and fable; for that it was said, it was so wholesome a root, that the devil, when it was gathered, bit it for envy: and some of the ancients do report, that there was a goodly fir, which they desired to remove whole, that had a root under ground eight cubits deep; and so the root came up broken.

654. It hath been observed, that a branch of a tree, being unbarked some space at the bottom, and so set into the ground, hath grown; even of such trees, as if the branch were set with the bark on, they would not grow; yet contrariwise we see, that a tree pared round in the body above ground, will die. The cause may be, for that the unbarked part draweth the nourishment best, but the bark continueth it only.

655. GRAPES will continue fresh and moist all winter long, if you hang them cluster by cluster in the roof of a warm room; especially if when you gather the cluster, you take off with the cluster some of the stock.

656. The reed or cane is a watery plant, and groweth not but in the water; it hath these properties; that it is hollow; that it is knuckled both stalk and root; that being dry, it is more hard and fragile than other wood; that it putteth forth no boughs, though many stalks come out of one root. It differeth much in greatness; the smallest being fit for thatching of houses, and stopping the chinks of ships, better than glue or pitch. The second bigness is used for angle-rods and flaves; and in China for beating of offenders upon the thighs. The differing kinds of them are; the common reed; the *castia styliæ*; and the sugar reed. Of all plants it boweth the easiest, and riseth again. It seemeth, that amongst plants which are nourished with mixture of earth and water, it draweth most nourishment from water; which maketh it the smoothest of all others in bark, and the hollowest in body.

657. The sap of trees when they are let blood, is of differing natures. Some more watery and clear; as that of vines, of beeches, of pears: some thick, as apples: some gummy, as cherries: some frothy, as elms: some milky, as figs. In mulberries, the sap seemeth to be (almost) towards the bark only; for if you cut the tree a little into the bark with a stone, it will come forth; if you pierce it deeper with a tool, it will be dry. The trees which have the moistest juices in their fruit, have commonly the moistest sap in their body; for the vines and pears are very moist; apples somewhat more spongy: the milk of the fig hath the quality of the rennet, to gather cheese: and so have certain four herbs wherewith they make cheese in Lent.

658. The timber and wood are in some trees more clean, in some more knotty; and it is a good trial, to try it by speaking at one end, and laying the ear at the



other: for if it be knotty, the voice will not pass well. Some have the veins more varied and chambletted; as oak, whereof wainscot is made; maple, whereof trenchers are made: some more smooth, as fir and walnut: some do more easily breed worms and spiders; some more hardly, as it is said of Irish trees: besides there be a number of differences that concern their use; as oak, cedar, and chestnut, are the best builders; some are best for plough timber, as ash; some for piers, that are sometimes wet and sometimes dry, as elm; some for planchers, as deal; some for tables, cupboards, and desks, as walnuts; some for ship timber, as oaks that grow in moist grounds; for that maketh the timber tough, and not apt to rift with ordnance; wherein English and Irish timber are thought to excel: some for masts of ships; as fir and pine, because of their length, straightness, and lightness: some for pale, as oak; some for fuel, as ash; and so of the rest.

659. THE coming of trees and plants in certain regions, and not in others, is sometimes casual: for many have been translated, and have prospered well; as damask roses, that have not been known in England above an hundred years, and now are so common. But the liking of plants in certain soils more than in others, is merely natural; as the fir and pine love the mountains; the poplar, willow, fallow, and alder, love rivers and moist places; the ash loveth coppices, but is best in standards alone; juniper loveth chalk; and so do most fruit trees; samphire groweth but upon rocks; reeds and others grow where they are washed with water; the vine loveth sides of hills, turning upon the south-east sun, *etc.*

660. THE putting forth of certain herbs, discovereth of what nature the ground where they put forth is; as wild thyme sheweth good feeding ground for cattel; betony and strawberries shew grounds fit for wood; camomile sheweth mellow grounds fit for wheat. Mustard-seed, growing after the plough, sheweth a good strong ground also for wheat: burnet sheweth good meadow, and the like.

661. THERE are found in divers countries some other plants that grow out of trees, and plants, besides mistletoe: as in Syria, there is an herb called *castitas*, that groweth out of tall trees, and windeth itself about the same tree where it groweth, and sometimes about thorns. There is a kind of polyode that groweth out of trees, though it windeth not. So likewise an herb called *jaunos*, upon the wild olive. And an herb called *hippobasson* upon the fullers thorn: which, they say, is good for the falling sickness.

662. IT hath been observed by some of the ancients, that howsoever cold and easterly winds are thought to be great enemies to fruit, yet nevertheless south winds are also found to do hurt, especially in the blossoming time; and the more, if showers follow. It seemeth, they call forth the moisture too fast. The west winds are the best. It hath been observed also, that green and open winters do hurt trees; inasmuch as if two or three such winters come together, almond trees, and some other trees, will die. The cause is the same with the former, because the lust of the earth over-spendeth itself: howsoever some other of the ancients have commended warm winters.

663. SNOWS lying long cause a fruitful year; for first, they keep in the strength of the earth; secondly, they water the earth better than rain: for in snow, the earth doth (as it were) suck the water, as out of the teat: thirdly, the moisture of snow is the finest moisture, for it is the froth of the cloudy waters.

664. SHOWERS, if they come a little before the ripening of fruits, do good to all succulent and moist fruits; as vines, olives, pomgranates; yet it is rather for plenty than for goodness; for the best vines are in the driest vintages: small showers are likewise good for corn, so as parching heats come not upon them. Generally night showers are better than day showers, for that the sun followeth not so fast upon them; and we see even in watering by the hand, it is best in summer time to water in the evening.

665. THE differences of earths, and the trial of them, are worthy to be diligently inquired. The earth, that with showers doth easiest soften, is commended; and yet some earth of that kind will be very dry and hard before the showers. The earth that casteth up from the plough a great clod, is not so good as that which casteth up a smaller clod. The earth that putteth forth moss easily, and



and may be called mouldy, is not good. The earth that smelleth well upon the digging, or ploughing, is commended; as containing the juice of vegetables almost already prepared. It is thought by some, that the ends of low rain-bows fall more upon one kind of earth than upon another; as it may well be; for that that earth is most roscid: and therefore it is commended for a sign of good earth. The poorness of the herbs (it is plain) shew the poorness of the earth; and especially if they be in colour more dark: but if the herbs shew withered, or blasted at the top, it sheweth the earth to be very cold; and so doth the moistness of trees. The earth, whereof the grass is soon parched with the sun, and toasted, is commonly forced earth, and barren in its own nature. The tender, cheslome, and mellow earth, is the best, being mere mould, between the two extremes of clay and sand, especially if it be not loamy and binding. The earth, that after rain will scarce be ploughed, is commonly fruitful: for it is cleaving, and full of juice.

666. It is strange, which is observed by some of the ancients, that dust helpeth the fruitfulness of trees, and of vines by name; inasmuch as they cast dust upon them of purpose. It should seem, that that powdering, when a shower cometh, maketh a kind of soiling to the tree, being earth and water finely laid on. And they note, that countries where the fields and ways are dusty bear the best vines.

667. It is commended by the ancients for an excellent help to trees, to lay the stalks and leaves of lupins about the roots, or to plough them into the ground where you will sow corn. The burning also of the cuttings of vines, and casting them upon land, doth much good. And it was generally received of old, that dunging of grounds when the west wind bloweth, and in the decrease of the moon, doth greatly help; the earth (as it seemeth) being then more thirsty and open to receive the dung.

668. The grafting of vines upon vines (as I take it) is not now in use: the ancients had it, and that three ways: the first was infusion, which is the ordinary manner of grafting: the second was terebration through the middle of the stock, and putting in the cions there: and the third was paring of two vines that grow together to the marrow, and binding them close.

669. The diseases and ill accidents of corn are worthy to be enquired; and would be more worthy to be enquired, if it were in mens power to help them; whereas many of them are not to be remedied. The mildew is one of the greatest, which (out of question) cometh by closeness of air; and therefore in hills, or large champain grounds, it seldom cometh; such as is with us York's wold. This cannot be remedied, otherwise than that in countries of small enclosure, the grounds be turned into larger fields: which I have known to do good in some farms. Another disease is the putting forth of wild oats, whereinto corn oftentimes (especially barley) doth degenerate. It happeneth chiefly from the weakness of the grain that is sown; for if it be either too old or mouldy, it will bring forth wild oats. Another disease is the satiety of the ground; for if you sow one ground still with the same corn (I mean not the same corn that grew upon the same ground) but the same kind of grain (as wheat, barley, *etc.*) it will prosper but poorly: therefore, besides the resting of the ground, you must vary the seed. Another ill accident is from the winds, which hurt at two times; at the flowering, by shaking off the flowers; and at the full ripening, by shaking out the corn. Another ill accident is drought, at the spindling of the corn, which with us is rare, but in hotter countries common: inasmuch as the word *calamitas* was first derived from *calamus*, when the corn could not get out of the stalk. Another ill accident is over-wet at sowing time, which with us breedeth much dearth, inasmuch as the corn never cometh up; and (many times) they are forced to sow summer corn, where they sowed winter corn. Another ill accident is bitter frosts continued without snow, especially in the beginning of the winter, after the seed is new sown. Another disease is worms, which sometimes breed in the root, and happen upon hot suns and showers immediately after the sowing; and another worm breedeth in the ear itself, especially when hot suns break often out of clouds. Another disease is weeds; and they are such as either choak and overshadow the corn,



corn, and bear it down; or starve the corn, and deceive it of nourishment. Another disease is over-rankness of the corn; which they use to remedy, by mowing it after it is come up; or putting sheep into it. Another ill accident, is laying of corn with great rains, near or in harvest. Another ill accident is, if the seed happen to have touched oil, or any thing that is fat; for those substances have an antipathy with nourishment of water.

670. The remedies of the diseases of corn have been observed as followeth. The steeping of the grain, before sowing, a little time in wine, is thought a preservative: the mingling of seed corn with ashes, is thought to be good: the sowing at the wane of the moon, is thought to make the corn sound: it hath not been practised, but it is thought to be of use, to make some miscellane in corn; as if you sow a few beans with wheat, your wheat will be the better. It hath been observed, that the sowing of corn with houseleek doth good. Though grain, that toucheth oil or fat, receiveth hurt, yet the steeping of it in the dregs of oil, when it beginneth to putrefy (which they call *amurca*) is thought to assure it against worms. It is reported also, that if corn be mowed, it will make the grain longer, but emptier, and having more of the husk.

671. It hath been noted, that seed of a year old is the best; and of two or three years is worse; and that which is more old is quite barren; though (no doubt) some seed and grains last better than others. The corn which in the yanning lieth lowest is the best: and the corn, which broken or bitten retaineth a little yellowness, is better than that which is very white.

672. It hath been observed, that of all roots of herbs, the root of sorrel goeth the farthest into the earth; insomuch that it hath been known to go three cubits deep: and that it is the root that continueth fit (longest) to be set again, of any root that groweth. It is a cold and acid herb, that (as it seemeth) loveth the earth, and is not much drawn by the sun.

673. It hath been observed that some herbs like best being watered with salt water; as radish, beet, rue, pennyroyal; this trial would be extended to some other herbs; especially such as are strong, as tarragon, mustard-seed, rocket, and the like.

674. It is strange that is generally received, how some poisonous beasts affect odorate and wholesome herbs; as that the snake loveth fennel; that the toad will be much under sage; that frogs will be in cinquefoil. It may be it is rather the shade, or other coverture, that they take liking in, than the virtue of the herb.

675. It were a matter of great profit (save that, I doubt, it is too conjectural to venture upon) if one could discern what corn, herbs, or fruits, are like to be in plenty or scarcity, by some signs and prognosticks in the beginning of the year: for as for those that are like to be in plenty, they may be bargained for upon the ground; as the old relation was of Thales; who to shew how easy it was for a philosopher to be rich, when he foresaw a great plenty of olives, made a monopoly of them. And for scarcity, men may make profit in keeping better the old store. Long continuance of snow is believed to make a fruitful year of corn: an early winter, or a very late winter, a barren year of corn: an open and serene winter, an ill year of fruit: these we have partly touched before: but other prognosticks of like nature are diligently to be enquired.

676. There seem to be in some plants, singularities, wherein they differ from all other; the olive hath the oily part only on the outside; whereas all other fruits have it in the nut or kernel. The fir hath (in effect) no stone, nut, nor kernel; except you will count the little grains kernels. The pomegranate and pine-apple have only amongst fruits grains distinct in several cells. No herbs have curled leaves, but cabbage and cabbage-lettuce. None have doubled leaves, one belonging to the stalk, another to the fruit or seed, but the artichoke. No flower hath that kind of spread that the woodbine hath. This may be a large field of contemplation; for it sheweth that in the frame of nature, there is, in the producing of some species, a composition of matter, which happeneth oft, and may be much diversified: in others, such as happeneth rarely, and admitteth little variety: for so it is likewise in beasts: dogs have a resemblance with wolves and foxes; horses with



with asses; kine with buffes; hares with coneyes, *etc.* And so in birds: kites and kestrels have a resemblance with hawks; common doves, with ring-doves and turtles; black-birds with thrushes and mavises; crows with ravens, daws, and choughs, *etc.* But elephants and swine amongst beasts; and the bird of paradise and the peacock amongst birds; and some few others, have scarce any other species that have affinity with them.

We leave the description of plants, and their virtues, to herbals, and other like books of natural history; wherein mens diligence hath been great, even to curiosity: for our experiments are only such, as do ever ascend a degree to the deriving of causes, and extracting of axioms, which we are not ignorant but that some both of the ancient and modern writers, have also laboured; but their causes and axioms are so full of imagination, and so infected with the old received theories, as they are mere inquisitions of experience, and concoct it not.

*Experiment solitary touching healing of wounds.*

677. It hath been observed by some of the ancients, that skins (especially of rams) newly pulled off, and applied to the wounds of stripes, do keep them from swelling and exulcerating; and likewise heal them and close them up; and that the whites of eggs do the same. The cause is a temperate conglutination; for both bodies are clammy and viscous, and do bridle the deflux of humours to the hurts, without penning them in too much.

*Experiment solitary touching fat diffused in flesh.*

678. You may turn (almost) all flesh into a fatty substance, if you take flesh, and cut it into pieces, and put the pieces into a glass covered with parchment; and so let the glass stand six or seven hours in boiling water. It may be an experiment of profit for making of fat, or grease, for many uses; but then it must be of such flesh as is not edible; as horses, dogs, bears, foxes, badgers, *etc.*

*Experiment solitary touching ripening of drink before the time.*

679. It is reported by one of the ancients, that new wine put into vessels well stopp'd, and the vessels let down into the sea, will accelerate very much the making of them ripe and potable. The same would be tried in wort.

*Experiment solitary touching pilosity and plumage.*

680. BEASTS are more hairy than men, and savage men more than civil; and the plumage of birds exceedeth the pilosity of beasts. The cause of the smoothness in men is not any abundance of heat and moisture, though that indeed causeth pilosity; but there is requisite to pilosity, not so much heat and moisture, as excrementitious heat and moisture (for whatsoever assimilath, goeth not into the hair) and excrementitious moisture aboundeth most in beasts, and men that are more savage. Much the same reason is there of the plumage of birds; for birds assimilate less, and excern more than beasts; for their excrements are ever liquid, and their flesh (generally) more dry: besides, they have not instruments for urine; and so all the excrementitious moisture goeth into the feathers: and therefore it is no marvel, though birds be commonly better meat than beasts, because their flesh doth assimilate more finely, and secerneth more subtilly. Again, the head of man hath hair upon the first birth, which no other part of the body hath. The cause may be want of perspiration; for much of the matter of hair, in the other parts of the body, goeth forth by insensible perspiration; and besides, the skull being of a more solid substance, nourisheth and assimilath less, and excerneth more; and so likewise doth the chin. We see also, that hair cometh not upon the palms of the hands, nor soles of the feet; which are parts more perspirable. And children likewise are not hairy, for that their skins are more perspirable.

*Experiment solitary touching the quickness of motion in birds.*

681. BIRDS are of swifter motion than beasts; for the flight of many birds is

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is swifter than the race of any beasts. The cause is, for that the spirits in birds are in greater proportion, in comparison of the bulk of their body, than in beasts: for as for the reason that some give, that they are partly carried, whereas beasts go, that is nothing; for by that reason swimming should be swifter than running: and that kind of carriage also is not without labour of the wing.

*Experiment solitary touching the different clearness of the sea.*

682. THE sea is clearer when the north wind bloweth, than when the south wind. The cause is for that salt water hath a little oiliness in the surface thereof, as appeareth in very hot days: and again, for that the southern wind relaxeth the water somewhat; and no water boiling is so clear as cold water.

*Experiment solitary touching the different heats of fire and boiling water.*

683. FIRE burneth wood, making it first luminous; then black and brittle; and lastly, broken and incinerate: scalding water doth none of these. The cause is, for that by fire the spirit of the body is first refined, and then emitted; whereof the refining or attenuation causeth the light; and the emission, first the fragility, and after the dissolution into ashes; neither doth any other body enter: but in water the spirit of the body is not refined so much; and besides part of the water entereth, which doth increase the spirit, and in a degree extinguish it: therefore we see that hot water will quench fire. And again we see, that in bodies wherein the water doth not much enter, but only the heat passeth, hot water worketh the effects of fire: as in eggs boiled and roasted (into which the water entereth not at all) there is scarce difference to be discerned; but in fruit, and flesh, whereinto the water entereth in some part, there is much more difference.

*Experiment solitary touching the qualification of heat by moisture.*

684. THE bottom of a vessel of boiling water (as hath been observed) is not very much heated, so as men may put their hand under the vessel and remove it. The cause is, for that the moisture of water as it queneth coals where it entereth, so it doth allay heat where it toucheth: and therefore note well, that moisture, although it doth not pass through bodies, without communication of some substance (as heat and cold do) yet it worketh manifest effects; not by entrance of the body, but by qualifying of the heat and cold; as we see in this instance: and we see likewise, that the water of things distilled in water (which they call the bath) differeth not much from the water of things distilled by fire. We see also, that pewter-dishes with water in them will not melt easily, but without it they will; nay we see more, that butter, or oil, which in themselves are inflammable, yet by virtue of their moisture will do the like.

*Experiment solitary touching yawning.*

685. IT hath been noted by the ancients, that it is dangerous to pick one's ear whilst he yawneth. The cause is, for that in yawning the inner parchment of the ear is extended, by the drawing in of the spirit and breath; for in yawning, and sighing both, the spirit is first strongly drawn in, and then strongly expelled.

*Experiment solitary touching the hiccough.*

686. IT hath been observed by the ancients, that sneezing doth cease the hiccough. The cause is, for that the motion of the hiccough is a lifting up of the stomach, which sneezing doth somewhat deprefs, and divert the motion another way. For first we see that the hiccough cometh of fulness of meat (especially in children) which causeth an extension of the stomach: we see also it is caused by acid meats, or drinks, which is by the pricking of the stomach; and this motion is ceased either by diversion, or by detention of the spirits; diversion, as in sneezing; detention, as we see holding of the breath doth help somewhat to cease the hiccough; and putting a man into an earnest study doth the like, as is commonly used: and vinegar put to the nostrils, or gargarized, doth it also; for that it is astringent, and inhibiteth the motion of the spirits.

*Experiment*



*Experiment solitary touching sneezing.*

687. Looking against the sun doth induce sneezing. The cause is not the heating of the nostrils, for then the holding up of the nostrils against the sun, though one wink, would do it; but the drawing down of the moisture of the brain: for it will make the eyes run with water; and the drawing of moisture to the eyes, doth draw it to the nostrils by motion of consent; and so followeth sneezing: as contrariwise, the tickling of the nostrils within, doth draw the moisture to the nostrils, and to the eyes by consent; for they also will water. But yet it hath been observed, that if one be about to sneeze, the rubbing of the eyes till they run with water, will prevent it. Whereof the cause is, for that the humout which was descending to the nostrils, is diverted to the eyes.

*Experiment solitary touching the tenderness of the teeth.*

688. THE teeth are more by cold drink, or the like, affected than the other parts. The cause is double; the one, for that the resistance of bone to cold is greater than of flesh, for that the flesh shrinketh, but the bone resisteth, whereby the cold becometh more eager: the other is, for that the teeth are parts without blood; whereas blood helpeth to qualify the cold; and therefore we see that the sinews are much affected with cold, for that they are parts without blood; so the bones in sharp colds wax brittle: and therefore it hath been seen, that all contusions of bones in hard weather are more difficult to cure.

*Experiment solitary touching the tongue.*

689. It hath been noted, that the tongue receiveth more easily tokens of diseases than the other parts; as of heats within, which appear most in the blackness of the tongue. Again, pyed cattle are spotted in their tongues, *etc.* The cause is (no doubt) the tenderness of the part, which thereby receiveth more easily all alterations, than any other parts of the flesh.

*Experiment solitary touching the taste.*

690. WHEN the mouth is out of taste, it maketh things taste sometimes salt, chiefly bitter; and sometimes loathsome, but never sweet. The cause is, the corrupting of the moisture about the tongue, which many times turneth bitter, and salt, and loathsome; but sweet never; for the rest are degrees of corruption.

*Experiment solitary touching some prognosticks of pestilential seasons.*

691. It was observed in the great plague of the last year, that there were seen in divers ditches and low grounds about London, many toads that had tails two or three inches long at the least; whereas toads (usually) have no tails at all. Which argueth a great disposition to putrefaction in the soil and air. It is reported likewise, that roots (such as carrots and parsnips) are more sweet and luscious in infectious years, than in other years.

*Experiment solitary touching special simples for medicines.*

692. Wise physicians should with all diligence enquire, what simples nature yieldeth, that have extreme subtile parts, without any mordication or acrimony; for they undermine that which is hard; they open that which is stopped and shut; and they expel that which is offensive, gently, without too much perturbation. Of this kind are elder-flowers; which therefore are proper for the stone: of this kind is the dwarf-pine; which is proper for the jaundice: of this kind is hartshorn; which is proper for agues and infections: of this kind is piony; which is proper for stoppings in the head: of this kind is fumitory; which is proper for the spleen: and a number of others. Generally, divers creatures bred of putrefaction, though they be somewhat loathsome to take, are of this kind; as earth-worms, timber-sows, snails, *etc.* And I conceive that the trochisks of vipers (which are so much magnified) and the flesh of snakes some ways condited, and corrected (which of late are grown into some credit) are of the same nature. So the parts of beasts putrefied (as *casiorum* and musk, which have



have extreme subtile parts) are to be placed amongst them. We see also, that putrefactions of plants (as agarick and Jew's-eat) are of greatest virtue. The cause is, for that putrefaction is the subtilest of all motions in the parts of bodies: and since we cannot take down the lives of living creatures, which, some of the Paracelsians say (if they could be taken down) would make us immortal; the next is for subtilty of operation, to take bodies putrefied; such as may be safely taken.

*Experiments in consort touching Venus.*

693. It hath been observed by the ancients, that much use of Venus doth dim the sight; and yet eunuchs, which are unable to generate, are (nevertheless) also dim-sighted. The cause of dimness of sight in the former, is the ex-pence of spirits; in the latter, the over-moisture of the brain: for the over-moisture of the brain doth thicken the spirits visual, and obstructeth their passages; as we see by the decay in the sight in age; where also the diminution of the spirits concurrereth as another cause: we see also that blindness cometh by rheums and cataracts. Now in eunuchs, there are all the notes of moisture; as the swelling of their thighs, the looseness of their belly, the smoothness of their skin, *etc.*

694. The pleasure in the act of Venus is the greatest of the pleasures of the senses; the matching of it with itch is improper, though that also be pleasing to the touch. But the causes are profound. First, all the organs of the senses qualify the motions of the spirits; and make so many several species of motions, and pleasures or displeasures thereupon, as there be diversities of organs. The instruments of sight, hearing, taste, and smell, are of several frame; and so are the parts for generation. Therefore Scaliger doth well to make the pleasure of generation a sixth sense; and if there were any other differing organs, and qualified perforations for the spirits to pass, there would be more than the five senses: neither do we well know, whether some beasts and birds have not senses that we know not; and the very scent of dogs is almost a sense by itself. Secondly, the pleasures of the touch are greater and deeper than those of the other senses; as we see in warming upon cold; or refrigeration upon heat: for as the pains of the touch are greater than the offences of other senses; so likewise are the pleasures. It is true, that the affecting of the spirits immediately, and (as it were) without an organ, is of the greatest pleasure; which is but in two things: sweet smells; and wine, and the like sweet vapours. For smells, we see their great and sudden effect in fetching men again when they swoon: for drink, it is certain that the pleasure of drunkenness is next the pleasure of Venus; and great joys (likewise) make the spirits move and touch themselves: and the pleasure of Venus is somewhat of the same kind.

695. It hath been always observed, that men are more inclined to Venus in the winter, and women in the summer. The cause is, for that the spirits, in a body more hot and dry (as the spirits of men are) by the summer are more exhaled and dissipated; and in the winter more condensed and kept entire: but in bodies that are cold and moist (as womens are) the summer doth cherish the spirits, and calleth them forth; the winter doth dull them. Furthermore, the abstinence, or intermission of the use of Venus in moist and well habitate bodies, breedeth a number of diseases; and especially dangerous impostumations. The reason is evident; for that it is a principal evacuation, especially of the spirits: for of the spirits, there is scarce any evacuation, but in Venus and exercise. And therefore the omission of either of them breedeth all diseases of repletion.

*Experiments in consort touching the insecta.*

The nature of vivification is very worthy the enquiry: and as the nature of things is commonly better perceived in small than in great; and in imperfect, than in perfect; and in parts, than in whole: so the nature of vivification is best enquired in creatures bred of putrefaction. The contemplation whereof hath many excellent fruits. First, in disclosing the original of vivification. Secondly,



condly, in disclosing the original of figuration. Thirdly, in disclosing many things in the nature of perfect creatures, which in them lie more hidden. And fourthly, in tracing, by way of operation, some observations in the *insecta*, to work effects upon perfect creatures. Note, that the word *insecta* agreeth not with the matter, but we ever use it for brevity's sake, intending by it creatures bred of putrefaction.

696. The *insecta* are found to breed out of several matters: some breed of mud or dung; as the earth-worms, eels, snakes, *etc.* For they are both putrefactions: for water in mud doth putrefy, as not able to preserve itself: and for dung, all excrements are the refuse and putrefactions of nourishment. Some breed in wood, both growing and cut down. *Quære*, in what woods most, and at what seasons? We see that the worms with many feet, which round themselves into balls, are bred chiefly under logs of timber, but not in the timber; and they are said to be found also (many times) in gardens, where no logs are. But it seemeth their generation requireth a coverture, both from sun, and rain or dew; as the timber is; and therefore they are not venomous, but (contrariwise) are held by the physicians to clarify the blood. It is observed also, that *cimices* are found in the holes of bed-sides. Some breed in the hair of living creatures; as lice and ticks; which are bred by the sweat close kept, and somewhat aresed by the hair. The excrements of living creatures do not only breed *insecta* when they are excremed, but also while they are in the body; as in worms, whereto children are most subject, and are chiefly in the guts. And it hath been lately observed by physicians, that in many pestilent diseases, there are worms found in the upper parts of the body, where excrements are not, but only humours putrefied. Fleas breed principally of straw or mats, where there hath been a little moisture; or the chamber and bed-straw kept close, and not aired. It is received, that they are killed by strewing wormwood in the rooms. And it is truly observed, that bitter things are apt rather to kill, than engender putrefaction; and they be things that are fat or sweet, that are aptest to putrefy. There is a worm that breedeth in meal, of the shape of a large white maggot, which is given as a great dainty to nightingales. The moth breedeth upon cloth, and other lanifices; especially if they be laid up dankish and wet. It delighteth to be about the flame of a candle. There is a worm called a wevil, bred under ground, and that feedeth upon roots; as parsnips, carrots, *etc.* Some breed in waters, especially shaded, but they must be standing waters; as the water-spider that hath six legs. The fly called the gad-fly, breedeth of somewhat that swimmeth upon the top of the water, and is most about ponds. There is a worm that breedeth of the dregs of wine decayed; which afterwards (as is observed by some of the ancients) turneth into a gnat. It hath been observed by the ancients, that there is a worm that breedeth in old snow, and is of colour reddish, and dull of motion, and dieth soon after it cometh out of snow. Which should shew, that snow hath in it a secret warmth; for else it could hardly vivify. And the reason of the dying of the worm, may be the sudden exhaling of that little spirit, as soon as it cometh out of the cold, which had shut it in. For as butterflies quicken with heat, which were benumbed with cold; so spirits may exhale with heat, which were preserved in cold. It is affirmed both by the ancient and modern observation, that in furnaces of copper and brass, where *chalcites* (which is vitriol) is often cast in to mend the working, there riseth suddenly a fly, which sometimes moveth as if it took hold on the walls of the furnace; sometimes is seen moving in the fire below; and dieth presently as soon as it is out of the furnace: which is a noble instance, and worthy to be weighed; for it sheweth, that as well violent heat of fire, as the gentle heat of living creatures, will vivify, if it have matter proportionable. Now the great axiom of vivification is, that there must be heat to dilate the spirit of the body; an active spirit to be dilated; matter viscous or tenacious to hold in the spirit; and that matter to be put forth and figured. Now a spirit dilated by so ardent a fire as that of the furnace, as soon as ever it cooleth never so little, congealeth presently. And (no doubt) this action is furthered by the *chalcites*, which hath a spirit that will put forth and germinate, as we see in chemical



trials. Briefly, most things putrefied bring forth *insecta* of several names; but we will not take upon us now to enumerate them all.

697. THE *insecta* have been noted by the ancients to feed little; but this hath not been diligently observed; for grasshoppers eat up the green of whole countries; and silk-worms devour leaves swiftly; and ants make great provision. It is true, that creatures that sleep and rest much, eat little; as dormice, and bats, *etc.* They are all without blood: which may be, for that the juice of their bodies is almost all one; not blood, and flesh, and skin, and bone, as in perfect creatures; the integral parts have extreme variety, but the similar parts little. It is true, that they have (some of them) a diaphragm and an intestine; and they have all skins; which in most of the *insecta* are cast often. They are not (generally) of long life: yet bees have been known to live seven years: and snakes are thought, the rather for the casting of their spoil, to live till they be old: and eels, which many times breed of putrefaction, will live and grow very long: and those that interchange from worms to flies in the summer, and from flies to worms in the winter, have been kept in boxes four years at the least. Yet there are certain flies that are called *ephemera* that live but a day. The cause is the exility of the spirit, or perhaps the absence of the sun; for that if they were brought in, or kept close, they might live longer. Many of the *insecta* (as butterflies, and other flies) revive easily when they seem dead, being brought to the sun, or fire. The cause whereof is the diffusion of the vital spirit, and the easy dilating of it by a little heat. They stir a good while after their heads are off, or that they be cut in pieces; which is caused also, for that their vital spirits are more diffused throughout all their parts, and less confined to organs, than in perfect creatures.

698. THE *insecta* have voluntary motion, and therefore imagination; and whereas some of the ancients have said that their motion is indeterminate, and their imagination indefinite, it is negligently observed; for ants go right forwards to their hills; and bees do (admirably) know the way from a flowery heath two or three miles off to their hives. It may be, gnats and flies have their imagination more mutable and giddy, as small birds likewise have. It is said by some of the ancients, that they have only the sense of feeling, which is manifestly untrue; for if they go forth-right to a place, they must needs have sight; besides, they delight more in one flower or herb than in another, and therefore have taste: and bees are called with sound upon brass, and therefore they have hearing; which sheweth likewise, that though their spirit be diffused, yet there is a seat of their senses in their head.

OTHER observations concerning the *insecta*, together with the enumeration of them, we refer to that place, where we mean to handle the title of animals in general.

#### *Experiment solitary touching leaping.*

699. A MAN leapeth better with weights in his hands than without. The cause is, for that the weight (if it be proportionable) strengtheneth the sinews by contracting them. For otherwise, where no contraction is needful, weight hindereth. As we see in horse-races, men are curious to foresee that there be not the least weight upon the one horse more than upon the other. In leaping with weights the arms are first cast backwards, and then forwards, with so much the greater force; for the hands go backward before they take their rise. *Quære*, if the contrary motion of the spirits, immediately before the motion we intend, doth not cause the spirits as it were to break forth with more force? as breath also, drawn and kept in, cometh forth more forcibly: and in casting of any thing, the arms, to make a greater swing, are first cast backward.

#### *Experiment solitary touching the pleasures and displeasures of the senses, especially of hearing.*

700. OF musical tones and unequal sounds we have spoken before; but touching the pleasure and displeasure of the senses, not so fully. Harsh sounds, as of a saw when it is sharpen'd; grinding of one stone against another; squeaking or shrieking noise; make a shivering or horror in the body, and set the teeth on edge.



edge. The cause is, for that the objects of the ear do affect the spirits (immediately) most with pleasure and offence. We see there is no colour that affecteth the eye much with displeasure: there be sights that are horrible, because they excite the memory of things that are odious, or fearful; but the same things painted do little affect. As for smells, tastes, and touches, they be things that do affect by a participation, or impulsion of the body of the object. So it is found alone that doth immediately and incorporeally affect most; this is most manifest in musick, and concords and discords in musick: for all sounds, whether they be sharp or flat, if they be sweet, have a roundness and equality; and if they be harsh, are unequal: for a discord itself is but a harshness of divers sounds meeting. It is true, that inequality not stayed upon, but passing, is rather an encrease of sweetness; as in the purring of a wreathed string; and in the raucity of a trumpet; and in the nightingale-pipe of a regal; and in a discord straight falling upon a concord; but if you stay upon it, it is offensive: and therefore there be these three degrees of pleasing and displeasing in sounds, sweet sounds, discords, and harsh sounds, which we call by divers names, as shrieking or grating, such as we now speak of. As for the setting of the teeth on edge, we see plainly what an intercourse there is between the teeth and the organ of the hearing, by the taking of the end of a bow between the teeth, and striking upon the string.



## NATURAL HISTORY.

## CENTURY VIII.

*Experiment solitary touching veins of medicinal earth.*

701. **T**HERE be minerals and fossils in great variety; but of veins of earth medicinal, but few: the chief are, *terra lemmia*, *terra sigillata communis*, and *bolus armenus*; whereof *terra lemmia* is the chief. The virtues of them are, for curing of wounds, stanching of blood, stopping of fluxes, and rheums, and arresting the spreading of poison, infection, and putrefaction: and they have of all other simples the perfectest and purest quality of drying, with little or no mixture of any other quality. Yet it is true, that the bole-armoniack is the most cold of them, and that *terra lemmia* is the most hot; for which cause the island Lemnos, where it is digged, was in the old fabulous ages consecrated to Vulcan.

*Experiment solitary touching the growth of sponges.*

702. ABOUT the bottom of the Straits are gathered great quantities of sponges, which are gathered from the sides of rocks, being as it were a large but tough-moss. It is the more to be noted, because that there be but few substances, plant-like, that grow deep within the sea; for they are gathered sometimes fifteen fathom deep: and when they are laid on shore, they seem to be of great bulk; but crushed together, will be transported in a very small room.

*Experiment solitary touching sea-fish put in fresh waters.*

703. It seemeth, that fish that are used to the salt water, do nevertheless delight more in fresh. We see, that salmons and smelts love to get into rivers, though it be against the stream. At the haven of Constantinople you shall have great quantities of fish that come from the Euxine sea, that when they come into the fresh water, do inebriate and turn up their bellies, so as you may take them with your hand. I doubt there hath not been sufficient experiment made of putting sea-fish into fresh water, ponds, and pools. It is a thing of great use and pleasure; for so you may have them new at some good distance from the sea: and besides, it may be, the fish will eat the pleasanter, and may fall to breed. And it is said, that Colchester oysters, which are put into pils, where the sea goeth and cometh (but yet so, that there is a fresh water coming also to them when the sea voideth) become by that means fatter, and more grown.

*Experiment solitary touching attraction by similitude of substance.*

704. THE Turkish bow giveth a very forcible shoot; inasmuch as it hath been known, that the arrow hath pierced a steel target, or a piece of brails of two inches thick: but that which is more strange, the arrow, if it be headed with wood, hath been known to pierce through a piece of wood of eight inches thick. And it is certain, that we had in use at one time, for sea fight, short arrows, which they called sprights, without any other heads, save wood sharpened; which were discharged out of muskets, and would pierce through the sides of ships where a bullet would not pierce. But this dependeth upon one of the greatest secrets in all nature; which is, that similitude of substance will cause attraction, where the body is wholly freed from the motion of gravity: for if that were taken away, lead would draw lead, and gold would draw gold, and iron would draw iron, without the help of the load-stone. But this same motion of weight or gravity (which is a mere motion of the matter, and hath no affinity with the form, or kind)



kind) doth kill the other motion, except itself be killed by a violent motion, as in these instances of arrows; for then the motion of attraction by similitude of substance beginneth to shew itself. But we shall handle this point of nature fully in due place.

*Experiment solitary touching certain drinks in Turkey.*

705. THEY have in Turkey and the east certain confections, which they call *servets*, which are like to candied conserves, and are made of sugar and lemons, or sugar and citrons, or sugar and violets, and some other flowers; and some mixture of amber for the more delicate persons: and those they dissolve in water, and thereof make their drink, because they are forbidden wine by their law. But I do much marvel, that no Englishman, or Dutchman, or German, doth set up brewing in Constantinople; considering they have such quantity of barley. For as for the general sort of men, frugality may be the cause of drinking water; for that it is no small saving, to pay nothing for one's drink; but the better sort might well be at the cost. And yet I wonder the less at it, because I see France, Italy, or Spain, have not taken into use beer or ale; which (perhaps) if they did, would better both their healths and their complexions. It is likely it would be matter of great gain to any that should begin it in Turkey.

*Experiments in consort touching sweat.*

706. IN bathing in hot water, sweat (nevertheless) cometh not in the parts under the water. The cause is; first, for that sweat is a kind of colligation; and that kind of colligation is not made either by an over-dry heat, or an over-moist heat: for over-moisture doth somewhat extinguish the heat, as we see that even hot water quencheneth fire; and over-dry heat shutteth the pores: and therefore men will sooner sweat covered before the sun, or fire, than if they stood naked: and earthen bottles, filled with hot water, do provoke in bed a sweat more daintily than brick-bats hot. Secondly, hot water doth cause evaporation from the skin; so as it spendeth the matter in those parts under the water, before it issueth in sweat. Again, sweat cometh more plentifully, if the heat be encreased by degrees, than if it be greatest at first, or equal. The cause is, for that the pores are better opened by a gentle heat, than by a more violent; and by their opening, the sweat issueth more abundantly. And therefore physicians may do well when they provoke sweat in bed by bottles, with a decoction of sudorifick herbs in hot water, to make two degrees of heat in the bottles; and to lay in the bed the less heated first, and after half an hour, the more heated.

707. SWEAT is salt in taste; the cause is, for that that part of the nourishment which is fresh and sweet, turneth into blood and flesh; and the sweat is only that part which is separate and excerned. Blood also raw hath some saltness more than flesh; because the assimilation into flesh is not without a little and subtle excretion from the blood.

708. SWEAT cometh forth more out of the upper parts of the body than the lower; the reason is, because those parts are more replenished with spirits; and the spirits are they that put forth sweat: besides, they are less fleshy, and sweat issueth (chiefly) out of the parts that are less fleshy, and more dry; as the forehead and breast.

709. MEN sweat more in sleep than waking; and yet sleep doth rather stay other fluxions, than cause them; as rheums, looseness of the body, *etc.* The cause is, for that in sleep the heat and spirits do naturally move inwards, and there rest. But when they are collected once within, the heat becometh more violent and irritate; and thereby expelleth sweat.

710. COLD sweats are (many times) mortal, and near death; and always ill, and suspected; as in great fears, hypochondriacal passions, *etc.* The cause is, for that cold sweats come by a relaxation or forsaking of the spirits, whereby the moisture of the body, which heat did keep firm in the parts, severeth and issueth out.

711. In those diseases which cannot be discharged by sweat, sweat is ill, and rather to be stayed; as in diseases of the lungs, and fluxes of the belly; but in those diseases which are expelled by sweat, it easeth and lighteneth; as in agues, pestilences, *etc.* The cause is, for that sweat in the latter sort is partly critical, and



and sendeth forth the matter that offendeth; but in the former, it either proceedeth from the labour of the spirits, which sheweth them oppressed; or from motion of consent, when nature not able to expel the disease where it is seated, moveth to an expulsion indifferent over all the body.

*Experiment solitary touching the glow-worm.*

712. THE nature of the glow-worm is hitherto not well observed. Thus much we see; that they breed chiefly in the hottest months of summer; and that they breed not in champain, but in bushes and hedges. Whereby it may be conceived, that the spirit of them is very fine, and not to be refined but by summer heats: and again, that by reason of the fineness, it doth easily exhale. In Italy, and the hotter countries, there is a fly they call *Luciola*, that shineth as the glow-worm doth; and it may be is the flying glow-worm. But that fly is chiefly upon fens and marshes. But yet the two former observations hold; for they are not seen but in the heat of summer; and sedge, or other green of the fens, give as good shade as bushes. It may be the glow-worms of the cold countries ripen not so far as to be winged.

*Experiments in consort touching the impressions, which the passions of the mind make upon the body.*

713. THE passions of the mind work upon the body the impressions following. Fear causeth paleness, trembling, the standing of the hair upright, starting, and shrieking. The paleness is caused, for that the blood runneth inward to succour the heart. The trembling is caused, for that through the flight of the spirits inward, the outward parts are destituted, and not sustained. Standing upright of the hair is caused, for that by the shutting of the pores of the skin, the hair that lieth aslope must needs rise. Starting is both an apprehension of the thing feared (and in that kind it is a motion of shrinking) and likewise an inquisition in the beginning, what the matter should be (and in that kind it is a motion of erection) and therefore when a man would listen suddenly to any thing, he starteth; for the starting is an erection of the spirits to attend. Shrieking is an appetite of expelling that which suddenly striketh the spirits: for it must be noted, that many motions, though they be unprofitable to expel that which hurteth, yet they are offers of nature, and cause motions by consent; as in groaning, or crying upon pain.

714. GRIEF and pain cause sighing, sobbing, groaning, screaming, and roaring; tears, distorting of the face, grinding of the teeth, sweating. Sighing is caused by the drawing in of a greater quantity of breath to refresh the heart that laboureth; like a great draught when one is thirsty. Sobbing is the same thing stronger. Groaning, and screaming, and roaring, are caused by an appetite of expulsion, as hath been said: for when the spirits cannot expel the thing that hurteth, in their strife to do it, by motion of consent, they expel the voice. And this is when the spirits yield, and give over to resist: for if one do constantly resist pain, he will not groan. Tears are caused by a contraction of the spirits of the brain; which contraction by consequence astringeth the moisture of the brain, and thereby sendeth tears into the eyes. And this contraction, or compression, causeth also wringing of the hands; for wringing is a gesture of expression of moisture. The distorting of the face is caused by a contention, first to bear and resist, and then to expel; which maketh the parts knit first, and afterwards open. Grinding of the teeth is caused (likewise) by a gathering and ferring of the spirits together to resist, which maketh the teeth also to sit hard one against another. Sweating is also a compound motion, by the labour of the spirits, first to resist, and then to expel.

715. JOY causeth a cheerfulness and vigour in the eyes, singing, leaping, dancing, and sometimes tears. All these are the effects of the dilatation, and coming forth of the spirits into the outward parts; which maketh them more lively and stirring. We know it hath been seen, that excessive sudden joy hath caused present death, while the spirits did spread so much as they could not retire again. As for tears, they are the effects of compression of the moisture of the brain, upon



upon dilatation of the spirits. For compression of the spirits worketh an expression of the moisture of the brain by consent, as hath been said in grief. But then in joy, it worketh it diversly; *viz.* by propulsion of the moisture, when the spirits dilate, and occupy more room.

716. **ANGER** causeth paleness in some, and the going and coming of the colour in others: also trembling in some; swelling, foaming at the mouth, stamping, bending of the fist. Paleness, and going and coming of the colour, are caused by the burning of the spirits about the heart; which to refresh themselves, call in more spirits from the outward parts. And if the paleness be alone, without sending forth the colour again, it is commonly joined with some fear; but in many there is no paleness at all, but contrariwise redness about the cheeks and gills; which is by the sending forth of the spirits in an appetite to revenge. Trembling in anger is likewise by a calling in of the spirits; and is commonly when anger is joined with fear. Swelling is caused, both by a dilatation of the spirits by over-heating, and by a liquefaction or boiling of the humours thereupon. Foaming at the mouth is from the same cause, being an ebullition. Stamping, and bending of the fist, are caused by an imagination of the act of revenge.

717. **LIGHT** displeasure or dislike causeth shaking of the head, frowning and knitting of the brows. These effects arise from the same causes that trembling and horror do; namely, from the retiring of the spirits, but in a less degree. For the shaking of the head is but a slow and definite trembling; and is a gesture of slight refusal: and we see also, that a dislike causeth (often) that gesture of the hand, which we use when we refuse a thing, or warn it away. The frowning and knitting of the brows is a gathering, or setting of the spirits, to resist in some measure. And we see also this knitting of the brows will follow upon earnest studying, or cogitation of any thing, though it be without dislike.

718. **SHAME** causeth blushing, and casting down of the eyes. Blushing is the resort of blood to the face; which in the passion of shame is the part that laboureth most. And although the blushing will be seen in the whole breast if it be naked, yet that is but in passage to the face. As for the casting down of the eyes, it proceedeth of the reverence a man beareth to other men; whereby, when he is ashamed, he cannot endure to look firmly upon others: and we see, that blushing, and the casting down of the eyes both, are more when we come before many; *ore Pompeii quid mollius? nunquam non coram pluribus erubuit*: and likewise when we come before great or reverend persons.

719. **PITY** causeth sometimes tears; and a flexion or cast of the eye aside. Tears come from the same cause that they do in grief: for pity is but grief in another's behalf. The cast of the eye is a gesture of aversion, or loathsomeness to behold the object of pity.

720. **WONDER** causeth astonishment, or an immoveable posture of the body; casting up of the eyes to heaven; and lifting up of the hands. For astonishment, it is caused by the fixing of the mind upon one object of cogitation, whereby it doth not spaciately and transcur, as it useth; for in wonder the spirits fly not, as in fear; but only settle, and are made less apt to move. As for the casting up of the eyes, and lifting up of the hands, it is a kind of appeal to the Deity, which is the author, by power and providence, of strange wonders.

721. **LAUGHING** causeth a dilatation of the mouth and lips; a continued expulsion of the breath, with the loud noise, which maketh the interjection of laughing; shaking of the breasts and sides; running of the eyes with water, if it be violent and continued. Wherein first it is to be understood, that laughing is scarce (properly) a passion, but hath its source from the intellect; for in laughing there ever precedeth a conceit of somewhat ridiculous. And therefore it is proper to man. Secondly, that the cause of laughing is but a light touch of the spirits, and not so deep an impression as in other passions. And therefore (that which hath no affinity with the passions of the mind) it is moved, and that in great vehemency, only by tickling some parts of the body: and we see that men even in a grieved state of mind, yet cannot sometimes forbear laughing. Thirdly, it is ever joined with some degree of delight: and therefore exhilaration



hilaration hath some affinity with joy, though it be a much lighter motion: *res severa est verum gaudium*. Fourthly, that the object of it is deformity, absurdity, shrewd turns, and the like. Now to speak of the causes of the effects before mentioned, whereunto these general notes give some light. For the dilatation of the mouth and lips, continued expulsion of the breath and voice, and shaking of the breast and sides, they proceed (all) from the dilatation of the spirits; especially being sudden. So likewise, the running of the eyes with water (as hath been formerly touched, where we spake of the tears of joy and grief) is an effect of dilatation of the spirits. And for suddenness, it is a great part of the matter: for we see, that any shrewd turn that lighteth upon another; or any deformity, *etc.* moveth laughter in the instant; which after a little time it doth not. So we cannot laugh at any thing after it is stale, but whilst it is new; and even in tickling, if you tickle the sides, and give warning; or give a hard or continued touch, it doth not move laughter so much.

722. LUST causeth a flagrancy in the eyes, and priapism. The cause of both these is, for that in lust, the sight and the touch are the things desired; and therefore the spirits resort to those parts which are most affected. And note well in general (for that great use may be made of the observation) that (evermore) the spirits, in all passions, resort most to the parts that labour most, or are most affected. As in the last which hath been mentioned, they resort to the eyes and venereous parts: in fear and anger to the heart: in shame to the face; and in light dislikes to the head.

*Experiments in consort touching drunkenness.*

723. It hath been observed by the ancients, and is yet believed, that the sperm of drunken men is unfruitful. The cause is, for that it is over-moistened, and wanteth spiffitude: and we have a merry saying, that they that go drunk to bed get daughters.

724. DRUNKEN men are taken with a plain defect, or destitution in voluntary motion. They reel; they tremble; they cannot stand, nor speak strongly. The cause is, for that the spirits of the wine oppress the spirits animal, and occupy part of the place where they are; and so make them weak to move. And therefore drunken men are apt to fall asleep: and opiates, and stupefactive (as poppy, henbane, hemlock, *etc.*) induce a kind of drunkenness by the grossness of their vapour; as wine doth by the quantity of the vapour. Besides, they rob the spirits animal of their matter, whereby they are nourished: for the spirits of the wine prey upon it as well as they: and so they make the spirits less supple and apt to move.

725. DRUNKEN men imagine every thing turneth round; they imagine also that things come upon them; they see not well things afar off; those things that they see near hand, they see out of their place; and (sometimes) they see things double. The cause of the imagination that things turn round, is, for that the spirits themselves turn, being compressed by the vapour of the wine (for any liquid body upon compression, turneth, as we see in water) and it is all one to the sight, whether the visual spirits move, or the object moveth, or the medium moveth. And we see that long turning round breedeth the same imagination. The cause of the imagination that things come upon them is, for that the spirits visual themselves draw back; which maketh the object seem to come on; and besides, when they see things turn round, and move, fear maketh them think they come upon them. The cause that they cannot see things afar off, is the weakness of the spirits; for in every megrim, or vertigo, there is an obtenebration joined with a semblance of turning round; which we see also in the lighter sort of swoonings. The cause of seeing things out of their place, is the refraction of the spirits visual; for the vapour is as an unequal medium; and it is as the sight of things out of place in water. The cause of seeing things double is, the swift and unquiet motion of the spirits (being oppressed) to and fro; for (as was said before) the motion of the spirits visual, and the motion of the object, make the same appearances; and for the swift motion of the object, we see, that if you fillip a lute-string, it sheweth double or treble.

726. MEN



726. MEN are sooner drunk with small draughts than with great. And again, wine sugared inebriateh less than wine pure. The cause of the former is, for that the wine descendeth not so fast to the bottom of the stomach, but maketh longer stay in the upper part of the stomach, and sendeth vapours faster to the head; and therefore inebriateh sooner. And for the same reason, sops in wine (quantity for quantity) inebriate more than wine of itself. The cause of the latter is, for that the sugar doth inspissate the spirits of the wine, and maketh them not so easy to resolve into vapour. Nay farther, it is thought to be some remedy against inebriating, if wine sugared be taken after wine pure. And the same effect is wrought either by oil, or milk, taken upon much drinking.

*Experiment solitary touching the help or hurt of wine, though moderately used.*

727. THE use of wine in dry and consumed bodies is hurtful; in moist and full bodies it is good. The cause is, for that the spirits of the wine do prey upon the dew or radical moisture (as they term it) of the body, and so deceive the animal spirits. But where there is moisture enough, or superfluous, there wine helpeth to digest, and desiccate the moisture.

*Experiment solitary touching caterpillars.*

728. THE caterpillar is one of the most general of worms, and breedeth of dew and leaves; for we see infinite number of caterpillars which breed upon trees and hedges, by which the leaves of the trees or hedges are in great part consumed; as well by their breeding out of the leaf, as by their feeding upon the leaf. They breed in the spring chiefly, because then there is both dew and leaf. And they breed commonly when the east winds have much blown; the cause whereof is, the dryness of that wind; for to all vivification upon putrefaction, it is requisite the matter be not too moist: and therefore we see they have cobwebs about them, which is a sign of a slimy dryness; as we see upon the ground, whereupon, by dew and sun, cobwebs breed all over. We see also the green caterpillar breedeth in the inward parts of roses, especially not blown, where the dew sticketh; but especially caterpillars, both the greatest, and the most, breed upon cabbages, which have a fat leaf, and apt to putrefy. The caterpillar towards the end of summer waxeth volatile, and turneth to a butterfly, or perhaps some other fly. There is a caterpillar that hath a fur or down upon it, and seemeth to have affinity with the silk-worm.

*Experiment solitary touching the flies cantharides.*

729. THE flies *cantharides* are bred of a worm, or caterpillar, but peculiar to certain fruit trees; as are the fig-tree, the pine-tree, and the wild briar; all which bear sweet fruit, and fruit that hath a kind of secret biting or sharpness: for the fig hath a milk in it, that is sweet and corrosive; the pine-apple hath a kernel that is strong and absterfve: the fruit of the briar is said to make children, or those that eat them, scabbed. And therefore, no marvel though *cantharides* have such a corrosive and cauterising quality; for there is not any other of the *insecta*, but is bred of a duller matter. The body of the *cantharides* is bright coloured; and it may be, that the delicate-coloured dragon-flies may have likewise some corrosive quality.

*Experiments in consort touching lassitude.*

730. LASSITUDE is remedied by bathing, or anointing with oil and warm water. The cause is, for that all lassitude is a kind of contusion, and compression of the parts; and bathing and anointing give a relaxation or emolliation; and the mixture of oil and water is better than either of them alone; because water entereth better into the pores, and oil after entry softneth better. It is found also, that the taking of tobacco doth help and discharge lassitude. The reason whereof is, partly, because by chearing or comforting of the spirits, it openeth the parts compressed or contused; and chiefly, because it refresheth the spirits by the opiate virtue thereof, and so dischargeth weariness, as sleep likewise doth.



731. IN going up a hill, the knees will be most weary; in going down a hill, the thighs. The cause is, for that in the lift of the feet, when a man goeth up the hill, the weight of the body beareth most upon the knees; and in going down the hill, upon the thighs.

*Experiment solitary touching the casting of the skin and shell in some creatures.*

732. THE casting of the skin is by the ancients compared to the breaking of the secundine; or caul, but not rightly: for that were to make every casting of the skin a new birth: and besides, the secundine is but a general cover, not shaped according to the parts, but the skin is shaped according to the parts. The creatures that cast their skin are, the snake, the viper, the grasshopper, the lizard, the silk-worm, *etc.* Those that cast their shell are, the lobster, the crab, the crawfish, the hordmandod or dodman, the tortoise, *etc.* The old skins are found, but the old shells never: so as it is like they scale off, and crumble away by degrees. And they are known by the extreme tenderness and softness of the new shell, and sometimes by the freshness of the colour of it. The cause of the casting of skin and shell should seem to be the great quantity of matter in those creatures that is fit to make skin or shell: and again, the looseness of the skin or shell, that sticketh not close to the flesh. For it is certain, that it is the new skin or shell that putteth off the old: so we see, that in deer it is the young horn that putteth off the old; and in birds, the young feathers put off the old: and so birds that have much matter for their beak, cast their beaks, the new beak putting off the old.

*Experiments in consort touching the postures of the body.*

733. LYING not erect, but hollow, which is in the making of the bed; or with the legs gathered up, which is in the posture of the body, is the more wholesome. The reason is, the better comforting of the stomach, which is by that less penile: and we see that in weak stomachs, the laying up of the legs high, and the knees almost to the mouth, helpeth and comforteth. We see also that galley-slaves, notwithstanding their misery otherwise, are commonly fat and fleshy; and the reason is, because the stomach is supported somewhat in sitting, and is penile in standing or going. And therefore, for prolongation of life, it is good to chuse those exercises where the limbs move more than the stomach and belly; as in rowing, and in sawing, being set.

734. MEGRIMS and giddiness are rather when we rise after long sitting, than while we sit. The cause is, for that the vapours, which were gathered by sitting, by the sudden motion, fly more up into the head.

735. LEANING long upon any part maketh it numb, and, as we call it, asleep. The cause is, for that the compression of the part suffereth not the spirits to have free access; and therefore when we come out of it, we feel a stinging or pricking, which is the re-entrance of the spirits.

*Experiment solitary touching pestilential years.*

736. IT hath been noted, that those years are pestilential and unwholesome, when there are great numbers of frogs, flies, locusts, *etc.* The cause is plain; for that those creatures being engender'd of putrefaction, when they abound, shew a general disposition of the year, and constitution of the air, to diseases of putrefaction. And the same prognostick (as hath been said before) holdeth, if you find worms in oak-apples: for the constitution of the air appeareth more subtilly in any of these things, than to the sense of man.

*Experiment solitary touching the prognosticks of hard winters.*

737. IT is an observation amongst country people, that years of store of haws and hips do commonly portend cold winters; and they ascribe it to God's providence, that (as the Scripture saith) reacheth even to the falling of a sparrow; and much more is like to reach to the preservation of birds in such seasons. The natural cause also may be the want of heat, and abundance of moisture, in the summer precedent; which putteth forth those fruits, and must needs leave great



quantity of cold vapours not dissipated; which causeth the cold of the winter following.

*Experiment solitary touching medicines that condense and relieve the spirits.*

738. THEY have in Turkey a drink called coffee, made of a berry of the same name, as black as soot, and of a strong scent, but not aromatical; which they take, beaten into powder, in water, as hot as they can drink it: and they take it, and sit at it in their coffee-houses, which are like our taverns. This drink comforteth the brain and heart, and helpeth digestion. Certainly this berry coffee, the root and leaf betle, the leaf tobacco, and the tear of poppy (*opium*) of which the Turks are great takers (supposing it expelleth all fear) do all condense the spirits, and make them strong and aliger. But it seemeth they are taken after several manners; for coffee and *opium* are taken down, tobacco but in smoak, and betle is but champed in the mouth with a little lime. It is like there are more of them, if they were well found out, and well corrected. *Squere* of henbane-seed; of mandrake; of saffron, root and flower; of *solum indicum*; of ambergrece; of the *Assyrian amomum*, if it may be had; and of the scarlet powder, which they call *kermes*; and (generally) of all such things as do inebriate and provoke sleep. Note, that tobacco is not taken in root or seed, which are more forcible ever than leaves.

*Experiment solitary touching paintings of the body.*

739. THE Turks have a black powder made of a mineral called alcohole, which with a fine long pencil they lay under their eye-lids, which doth colour them black; whereby the white of the eye is set off more white. With the same powder they colour also the hairs of their eye-lids, and of their eye-brows, which they draw into embowed arches. You shall find that Xenophon maketh mention, that the Medes used to paint their eyes. The Turks use with the same tincture to colour the hair of their heads and beards black. And divers with us that are grown grey, and yet would appear young, find means to make their hair black, by combing it (as they say) with a leaden comb, or the like. As for the Chinese, who are of an ill complexion (being olivaster) they paint their cheeks scarlet, especially their king and grandees. Generally, barbarous people, that go naked, do not only paint themselves, but they pounce and raise their skin, that the painting may not be taken forth; and make it into works. So do the West-Indians; and so did the ancient Picts and Britons; so that it seemeth men would have the colours of birds feathers, if they could tell how; or at least, they will have gay skins instead of gay clothes.

*Experiment solitary touching the use of bathing and anointing.*

740. IT is strange, that the use of bathing, as a part of diet, is left. With the Romans and Grecians it was as usual, as eating or sleeping; and so is it amongst the Turks at this day; whereas with us it remaineth but as a part of physick. I am of opinion, that the use of it, as it was with the Romans, was hurtful to health; for that it made the body soft, and easy to waste. For the Turks it is more proper, because that their drinking water and feeding upon rice, and other food of small nourishment, maketh their bodies so solid and hard, as you need not fear that bathing should make them frothy. Besides, the Turks are great sitters, and seldom walk, whereby they sweat less, and need bathing more. But yet certain it is, that bathing, and especially anointing, may be so used as it may be a great help to health, and prolongation of life. But hereof we shall speak in due place, when we come to handle experiments medicinal.

*Experiment solitary touching chamberletting of paper.*

741. THE Turks have a pretty art of chamberletting of paper, which is not with us in use. They take divers oiled colours, and put them severally (in drops) upon water, and stir the water lightly, and then wet their paper (being of some thickness) with it, and the paper will be waved and veined, like chamberlet or marble.

*Experiment*



*Experiment solitary touching cuttle-ink.*

742. It is somewhat strange, that the blood of all birds and beasts, and fishes, should be of a red colour, and only the blood of the cuttle should be as black as ink. A man would think, that the cause should be the high concoction of that blood; for we see in ordinary puddings, that the boiling turneth the blood to be black; and the cuttle is accounted a delicate meat, and is much in request.

*Experiment solitary touching encrease of weight in earth.*

743. It is reported of credit, that if you take earth from land adjoining to the river of Nile, and preserve it in that manner that it neither come to be wet nor wasted; and weigh it daily, it will not alter weight until the seventeenth of June, which is the day when the river beginneth to rise; and then it will grow more and more ponderous, till the river cometh to its height. Which if it be true, it cannot be caused but by the air, which then beginneth to condense; and so turneth within that small mould into a degree of moisture, which produceth weight. So it hath been observed, that tobacco cut, and weighed, and then dried by the fire, loseth weight; and after being laid in the open air, recovereth weight again. And it should seem, that as soon as ever the river beginneth to encrease, the whole body of the air thereabouts suffereth a change: for (that which is more strange) it is credibly affirmed, that upon that very day when the river first riseth, great plagues in Cairo use suddenly to break up.

*Experiments in consort touching sleep.*

744. THOSE that are very cold, and especially in their feet, cannot get to sleep: the cause may be, for that in sleep is required a free respiration, which cold doth shut in and hinder; for we see, that in great colds one can scarce draw his breath. Another cause may be, for that cold calleth the spirits to succour; and therefore they cannot so well close, and go together in the head; which is ever requisite to sleep. And for the same cause, pain and noise hinder sleep; and darkness (contrariwise) furthereth sleep.

745. SOME noises (whereof we spake in the hundred and twelfth experiment) help sleep; as the blowing of the wind, the trickling of water, humming of bees, soft singing, reading, *etc.* The cause is, for that they move in the spirits a gentle attention; and whatsoever moveth attention without too much labour, stilleth the natural and discursive motion of the spirits.

746. SLEEP nourisheth, or at least preserveth bodies, a long time, without other nourishment. Beasts that sleep in winter (as it is noted of wild bears) during their sleep wax very fat, though they eat nothing. Bats have been found in ovens, and other hollow close places, matted one upon another; and therefore it is likely that they sleep in the winter time, and eat nothing. *Quære*, whether bees do not sleep all winter, and spare their honey? Butterflies, and other flies, do not only sleep, but lie as dead all winter; and yet with a little heat of sun or fire, revive again. A dormouse, both winter and summer, will sleep some days together, and eat nothing.

*Experiments in consort touching teeth and hard substances in the bodies of living creatures.*

To restore teeth in age, were *magnæ naturæ*. It may be thought of. But howsoever, the nature of the teeth deserveth to be enquired of, as well as the other parts of living creatures bodies.

747. THERE be five parts in the bodies of living creatures, that are of hard substance; the skull, the teeth, the bones, the horns, and the nails. The greatest quantity of hard substance continued, is towards the head. For there is the skull of one entire bone; there are the teeth; there are the maxillary bones; there is the hard bone that is the instrument of hearing; and thence issue the horns: so that the building of living creatures bodies is like the building of a timber house, where the walls and other parts have columns and beams; but the roof is, in the better sort of houses, all tile, or lead, or stone. As for birds, they have three  
other



other hard substances proper to them; the bill, which is of like matter with the teeth; for no birds have teeth: the shell of the egg: and their quills: for as for their spur, it is but a nail. But no living creatures, that have shells very hard (as oysters, cockles, muscles, scallops, crabs, lobsters, craw-fish, shrimps, and especially the tortoise) have bones within them, but only little gristles.

748. BONES, after full growth, continue at a stay; and so doth the skull: horns, in some creatures, are cast and renewed: teeth stand at a stay, except their wearing: as for nails, they grow continually: and bills and beaks will overgrow, and sometimes be cast; as in eagles and parrots.

749. Most of the hard substances fly to the extremes of the body: as skull, horns, teeth, nails, and beaks: only the bones are more inward, and clad with flesh. As for the entrails, they are all without bones; save that a bone is (sometimes) found in the heart of a stag; and it may be in some other creature.

750. THE skull hath brains, as a kind of marrow, within it. The back-bone hath one kind of marrow, which hath an affinity with the brain; and other bones of the body have another. The jaw-bones have no marrow sever'd, but a little pulp of marrow diffused. Teeth likewise are thought to have a kind of marrow diffused, which causeth the sense and pain; but it is rather sinew; for marrow hath no sense; no more than blood. Horn is alike throughout; and so is the nail.

751. NONE other of the hard substances have sense, but the teeth; and the teeth have sense, not only of pain but of cold.

But we will leave the enquiries of other hard substances unto their several places; and now enquire only of the teeth.

752. THE teeth are, in men, of three kinds: sharp, as the fore-teeth; broad, as the back-teeth, which we call the molar-teeth, or grinders; and pointed-teeth, or canine, which are between both. But there have been some men, that have had their teeth undivided, as of one whole bone, with some little mark in the place of the division; as Pyrrhus had. Some creatures have over-long, or out-growing teeth, which we call fangs, or tusks; as boars, pikes, salmons, and dogs, though less. Some living creatures have teeth against teeth; as men and hories; and some have teeth, especially their master-teeth, indented one within another like saws, as lions; and so again have dogs. Some fishes have divers rows of teeth in the roofs of their mouths; as pikes, salmons, trouts, *etc.* And many more in salt-waters. Snakes, and other serpents have venomous teeth, which are sometimes mistaken for their sting.

753. No beast that hath horns, hath upper teeth; and no beast that hath teeth above, wanteth them below: but yet if they be of the same kind, it followeth not, that if the hard matter goeth not into upper teeth, it will go into horns; nor yet *conversely*; for does, that have no horns, have no upper teeth.

754. HORSES have, at three years old, a tooth put forth, which they call the colt's tooth; and at four years old there cometh the mark tooth, which hath a hole as big as you may lay a pea within it; and that weareth shorter and shorter every year; till that at eight years old the tooth is smooth, and the hole gone; and then they say, that the mark is out of the horse's mouth.

755. THE teeth of men breed first, when the child is about a year and half old; and then they cast them, and new come about seven years old. But divers have backward teeth come forth at twenty, yea some at thirty and forty. *Quære* of the manner of the coming of them forth. They tell a tale of the old countess of Desmond, who lived till she was seven-score years old, that she did denire twice or thrice; casting her old teeth, and others coming in their place.

756. TEETH are much hurt by sweet-meats; and by painting with mercury; and by things over-hot; and by things over-cold; and by rheums. And the pain of the teeth is one of the sharpest of pains.

757. CONCERNING teeth, these things are to be considered. 1. The preserving of them. 2. The keeping of them white. 3. The drawing of them with least pain. 4. The staying and easing of the tooth-ach. 5. The binding in of artificial teeth, where teeth have been stricken out. 6. And last of all, that great one of restoring teeth in age. The instances that give any likelihood of restoring teeth in age, are;



are; the late coming of teeth in some; and the renewing of the beaks in birds, which are commaterial with teeth. *Quære* therefore more particularly how that cometh. And again, the renewing of horns. But yet that hath not been known to have been provoked by art; therefore let trial be made, whether horns may be procured to grow in beasts that are not horned, and how? And whether they may be procured to come larger than usual; as to make an ox, or a deer, have a greater head of horns? And whether the head of a deer, that by age is more spitted, may be brought again to be more branched? For these trials, and the like, will shew, whether by art such hard matter can be called and provoked. It may be tried also, whether birds may not have something done to them when they are young, whereby they may be made to have greater or longer bills; or greater and longer talons? And whether children may not have some wash, or something to make their teeth better and stronger? Coral is in use as an help to the teeth of children.

*Experiments in consort touching the generation and bearing of living creatures in the womb.*

758. Some living creatures generate but at certain seasons of the year; as deer, sheep, wild conies, *etc.* and most sorts of birds and fishes: others at any time of the year, as men; and all domestick creatures, as horses, hogs, dogs, cats, *etc.* The cause of generation at all seasons seemeth to be fullness: for generation is from redundancy. This fullness ariseth from two causes; either from the nature of the creature, if it be hot, and moist, and sanguine; or from plenty of food. For the first, men, horses, dogs, *etc.* which breed at all seasons, are full of heat and moisture; doves are the fullest of heat and moisture amongst birds, and therefore breed often; the tame dove almost continually. But deer are a melancholy dry creature, as appeareth by their fearfulness, and the hardness of their flesh. Sheep are a cold creature, as appeareth by their mildness, and for that they seldom drink. Most sort of birds are of a dry substance in comparison of beasts. Fishes are cold. For the second cause, fullness of food; men, kine, swine, dogs, *etc.* feed full; and we see that those creatures, which being wild, generate seldom, being tame, generate often; which is from warmth, and fullness of food. We find, that the time of going to rut of deer is in September; for that they need the whole summer's feed and graze to make them fit for generation. And if rain come early about the middle of September, they go to rut somewhat the sooner; if drought, somewhat the later. So sheep, in respect of their small heat, generate about the same time, or somewhat before. But for the most part, creatures that generate at certain seasons, generate in the spring; as birds and fishes: for that the end of the winter, and the heat and comfort of the spring prepareth them. There is also another reason, why some creatures generate at certain seasons; and that is the relation of their time of bearing, to the time of generation: for no creature goeth to generate, whilst the female is full; nor whilst she is busy in sitting, or rearing her young. And therefore it is found by experience, that if you take the eggs, or young ones, out of the nests of birds, they will fall to generate again three or four times one after another.

759. Of living creatures, some are longer time in the womb, and some shorter. Women go commonly nine months; the cow and the ewe about six months; does go about nine months; mares eleven months; bitches nine weeks; elephants are said to go two years; for the received tradition of ten years is fabulous. For birds there is double enquiry; the distance between the treading or coupling, and the laying of the egg; and again, between the egg laid, and the disclosing or hatching. And amongst birds, there is less diversity of time, than amongst other creatures; yet some there is: for the hen sitteth but three weeks; the turkey-hen, goose, and duck, a month: *Quære* of others. The cause of the great difference of times amongst living creatures, is, either from the nature of the kind; or from the constitution of the womb. For the former, those that are longer in coming to their maturity or growth, are longer in the womb; as is chiefly seen in men: and so elephants, which are long in the womb,



womb, are long time in coming to their full growth. But in most other kinds, the constitution of the womb (that is, the hardness or dryness thereof) is concurrent with the former cause. For the colt hath about four years of growth; and so the fawn; and so the calf. But whelps, which come to their growth (commonly) within three quarters of a year, are but nine weeks in the womb. As for birds, as there is less diversity amongst them in the time of their bringing forth; so there is less diversity in the time of their growth; most of them coming to their growth within a twelvemonth.

760. Some creatures bring forth many young ones at a burthen: as bitches, hares, conies, *etc.* Some ordinarily but one; as women, lionesses, *etc.* This may be caused, either by the quantity of sperm required to the producing one of that kind; which if less be required, may admit greater number; if more, fewer: or by the partitions and cells of the womb, which may sever the sperm.

*Experiments in consort touching species visible.*

761. THERE is no doubt, but light by refraction will shew greater, as well as things coloured. For like as a shilling in the bottom of the water will shew greater; so will a candle in a lanthorn, in the bottom of the water. I have heard of a practice, that glow-worms in glasses were put in the water to make the fish come. But I am not yet informed, whether when a diver diveth, having his eyes open, and swimmeth upon his back; whether (I say) he seeth things in the air, greater or less. For it is manifest, that when the eye standeth in the finer medium, and the object is in the grosser, things shew greater; but contrariwise, when the eye is placed in the grosser medium, and the object in the finer, how it worketh I know not.

762. IT would be well bouted out, whether great refractions may not be made upon reflexions, as well as upon direct beams. For example, we see, that take an empty basin, put an angel of gold, or what you will, into it; then go so far from the basin, till you cannot see the angel, because it is not in a right line; then fill the basin with water, and you shall see it out of its place, because of the reflexion. To proceed therefore, put a looking-glass into a basin of water; I suppose you shall not see the image in a right line, or at equal angles, but aside. I know not whether this experiment may not be extended so, as you might see the image, and not the glass; which for beauty and strangeness were a fine proof: for then you should see the image like a spirit in the air. As for example, if there be a cistern or pool of water, you shall place over against it a picture of the devil, or what you will, so as you do not see the water. Then put a looking-glass in the water: now if you can see the devil's picture aside, not seeing the water it would look like a devil indeed. They have an old tale in Oxford, that friar Bacon walked between two steeples: which was thought to be done by glasses, when he walked upon the ground.

*Experiments in consort touching impulsion and percussion.*

763. A WEIGHTY body put into motion, is more easily impelled, than at first when it resteth. The cause is, partly because motion doth discuss the torpor of solid bodies; which, beside their motion of gravity, have in them a natural appetite not to move at all; and partly, because a body that resteth, doth get, by the resistance of the body upon which it resteth, a stronger compression of parts than it hath of itself: and therefore needeth more force to be put in motion. For if a weighty body be penile, and hang but by a thread, the percussion will make an impulsion very near as easily, as if it were already in motion.

764. A BODY over great, or over small, will not be thrown so far as a body of a middle size: so that (it seemeth) there must be a commensuration, or proportion between the body moved and the force, to make it move well. The cause is, because to the impulsion there is requisite the force of the body that moveth, and the resistance of the body that is moved: and if the body be too great, it yieldeth too little; and if it be too small, it resisteth too little.

765. IT is common experience, that no weight will press or cut so strong, being



being laid upon a body, as falling or stricken from above. It may be the air hath some part in furthering the percussion; but the chief cause I take to be, for that the parts of the body moved have by impulsion, or by the motion of gravity continued, a compression in them, as well downwards, as they have when they are thrown, or shot through the air, forwards. I conceive also, that the quick loss of that motion preventeth the resistance of the body below; and priority of the force (always) is of great efficacy, as appeareth in infinite instances.

*Experiment solitary touching titillation.*

766. TICKLING is most in the soles of the feet, and under the arm-holes, and on the sides. The cause is, the thinness of the skin in those parts, joined with the rareness of being touched there: for all tickling is a light motion of the spirits, which the thinness of the skin, and suddenness and rareness of touch do further: for we see a feather, or a rush, drawn along the lip or cheek, doth tickle; whereas a thing more obtuse, or a touch more hard, doth not. And for suddenness, we see no man can tickle himself: we see also that the palm of the hand, though it hath as thin a skin as the other parts mentioned, yet is not ticklish, because it is accustomed to be touched. Tickling also causeth laughter. The cause may be the emission of the spirits, and so of the breath, by a slight from titillation; for upon tickling we see there is ever a starting, or shrinking away of the part to avoid it; and we see also, that if you tickle the nostrils with a feather, or straw, it procureth sneezing; which is a sudden emission of the spirits that do likewise expel the moisture. And tickling is ever painful, and not well endured.

*Experiment solitary touching the scarcity of rain in Ægypt.*

767. It is strange, that the river of Nilus overflowing, as it doth, the country of Ægypt, there should be nevertheless little or no rain in that country. The cause must be either in the nature of the water, or in the nature of the air, or of both. In the water, it may be ascribed either unto the long race of the water: for swift running waters vapour not so much as standing waters; or else to the concoction of the water; for waters well concocted vapour not so much as waters raw; no more than waters upon the fire do vapour so much after some time of boiling as at the first. And it is true, that the water of Nilus is sweeter than other waters in taste; and it is excellent good for the stone, and hypochondriacal melancholy, which sheweth it is lenifying; and it runneth through a country of a hot climate, and flat, without shade, either of woods or hills, whereby the sun must needs have great power to concoct it. As for the air (from whence I conceive this want of showers cometh chiefly) the cause must be, for that the air is of itself thin and thirsty; and as soon as ever it getteth any moisture from the water, it imbibeth and dissipateth it in the whole body of the air, and suffereth it not to remain in vapour, whereby it might breed rain.

*Experiment solitary touching clarification.*

768. It hath been touched in the title of percolations (namely, such as are inwards) that the whites of eggs, and milk do clarify; and it is certain, that in Ægypt they prepare and clarify the water of Nile, by putting it into great jars of stone, and stirring it about with a few stamped almonds, wherewith they also besmear the mouth of the vessel; and so draw it off, after it hath rested some time. It were good to try this clarifying with almonds in new beer, or muste, to hasten and perfect the clarifying.

*Experiment solitary touching plants without leaves.*

769. THERE be scarce to be found any vegetables, that have branches and no leaves, except you allow coral for one. But there is also in the deserts of S. Macaria in Ægypt, a plant which is long, leafless, brown of colour, and branched like coral, save that it closeth at the top. This being set in water within a house, spreadeth and displayeth strangely; and the people thereabout have



have a superstitious belief, that in the labour of women it helpeth to the easy deliverance.

*Experiment solitary touching the materials of glass.*

770. The crystalline Venice glass is reported to be a mixture in equal portions of stones brought from Pavia by the river Ticinum, and the ashes of a weed, called by the Arabs kal, which is gathered in a desert between Alexandria and Rosetta; and is by the Egyptians used first for fuel; and then they crush the ashes into lumps like a stone, and so sell them to the Venetians for their glass-works.

*Experiment solitary touching prohibition of putrefaction, and the long conservation of bodies.*

771. It is strange, and well to be noted, how long carcases have continued uncorrupt, and in their former dimensions, as appeareth in the mummies of Ægypt; having lasted, as is conceived (some of them) three thousand years. It is true, they find means to draw forth the brains, and to take forth the entrails, which are the parts aptest to corrupt. But that is nothing to the wonder: for we see what a soft and corruptible substance the flesh of all the other parts of the body is. But it should seem, that, according to our observation and axiom in our hundredth experiment, putrefaction, which we conceive to be so natural a period of bodies, is but an accident; and that matter maketh not that haste to corruption that is conceived. And therefore bodies in shining amber, in quicksilver, in balms (whereof we now speak) in wax, in honey, in gums, and (it may be) in conservatories of snow, *etc.* are preserved very long. It need not go for repetition, if we resume again that which we said in the aforesaid experiment concerning annihilation; namely, that if you provide against three causes of putrefaction, bodies will not corrupt: the first is, that the air be excluded, for that undermineth the body, and conspireth with the spirit of the body to dissolve it. The second is, that the body adjacent and ambient be not commaterial, but merely heterogeneous towards the body that is to be preserved; for if nothing can be received by the one, nothing can issue from the other; such are quicksilver and white amber, to herbs, and flies, and such bodies. The third is, that the body to be preserved be not of that gross that it may corrupt within itself, although no part of it issue into the body adjacent: and therefore it must be rather thin and small, than of bulk. There is a fourth remedy also, which is, that if the body to be preserved be of bulk, as a corps is, then the body that enfoldeth it must have a virtue to draw forth, and dry the moisture of the inward body; for else the putrefaction will play within, though nothing issue forth. I remember Livy doth relate, that there were found at a time two coffins of lead in a tomb; whereof the one contained the body of king Numa, it being some four hundred years after his death: and the other, his books of sacred rites and ceremonies, and the discipline of the pontifs; and that in the coffin that had the body, there was nothing (at all) to be seen, but a little light cinders about the sides; but in the coffin that had the books, they were found as fresh as if they had been but newly written, being written on parchment, and covered over with watch-candles of wax three or four fold. By this it seemeth that the Romans in Numa's time were not so good embalmers as the Egyptians were; which was the cause that the body was utterly consumed. But I find in Plutarch, and others, that when Augustus Cæsar visited the sepulchre of Alexander the Great in Alexandria, he found the body to keep its dimension; but withal, that notwithstanding all the embalming (which no doubt was of the best) the body was so tender, as Cæsar touching but the nose of it, defaced it. Which maketh me find it very strange, that the Egyptian mummies should be reported to be as hard as stone-pitch; for I find no difference but one, which indeed may be very material; namely, that the ancient Egyptian mummies were shrowded in a number of folds of linen, besmeared with gums, in manner of scar-cloth, which it doth not appear was practised upon the body of Alexander.



*Experiment solitary touching the abundance of nitre in certain sea-shores.*

772. NEAR the castle of Caty, and by the wells of Affan, in the land of Idumæa, a great part of the way you would think the sea were near at hand, tho' it be a good distance off: and it is nothing but the shining of the nitre upon the sea sands, such abundance of nitre the shores there do put forth.

*Experiment solitary touching bodies that are born up by water.*

773. THE dead-sea, which vomiteth up bitumen, is of that crassitude, as living bodies bound hand and foot cast into it have been born up, and not sunk; which sheweth, that all sinking into water is but an over-weight of the body put into the water in respect of the water; so that you may make water so strong and heavy, of quick-silver (perhaps) or the like, as may bear up iron; of which I see no use, but impossure. We see also, that all metals, except gold, for the same reason, swim upon quicksilver.

*Experiment solitary touching fuel that consumeth little or nothing.*

774. IT is reported, that at the foot of a hill, near the *mare mortuum*, there is a black stone (whereof pilgrims make fires) which burneth like a coal, and diminisheth not, but only waxeth brighter and whiter. That it should do so is not strange; for we see iron red-hot burneth, and consumeth not; but the strangeness is, that it should continue any time so: for iron, as soon as it is out of the fire, deadeth straightways. Certainly it were a thing of great use and profit, if you could find out fuel that would burn hot, and yet last long: neither am I altogether incredulous, but there may be such candles as they say are made of salamander's wool; being a kind of mineral, which whiteneth also in the burning, and consumeth not. The question is this; flame must be made of somewhat, and commonly it is made of some tangible body which hath weight: but it is not impossible perhaps that it should be made of spirit, or vapour, in a body (which spirit or vapour hath no weight) such as is the matter of *ignis fatuus*. But then you will say, that that vapour also can last but a short time: to that it may be answered, that by the help of oil, and wax, and other candle-stuff, the flame may continue, and the wick not burn.

*Experiment solitary economical touching cheap fuel.*

775. SEA-COAL lasts longer than charcoal; and charcoal of roots, being coaled into great pieces, lasts longer than ordinary char-coal. Turf and peat, and cow-sheards, are cheap fuels, and last long. Small-coal, or briar-coal, poured upon char-coal, make them last longer. Sedge is a cheap fuel to brew or bake with; the rather because it is good for nothing else. Trial would be made of some mixture of sea-coal with earth or chalk; for if that mixture be, as the sea-coal men use it, privily, to make the bulk of the coal greater, it is deceit; but if it be used purposely, and be made known, it is saving.

*Experiment solitary touching the gathering of wind for freshness.*

776. IT is at this day in use in Gaza, to couch potsherds or vessels of earth in their walls, to gather the wind from the top, and to pass it down in spouts into rooms. It is a device for freshness in great heats: and it is said, there are some rooms in Italy and Spain for freshness, and gathering the winds and air in the heats of summer: but they be but penings of the winds, and enlarging them again, and making them reverberate, and go round in circles, rather than this device of spouts in the wall.

*Experiment solitary touching the trials of airs.*

777. THERE would be used much diligence in the choice of some bodies and places (as it were) for the tasting of air; to discover the wholesomeness or unwholesomeness, as well of seasons, as of the seats of dwellings. It is certain, that there be some houses wherein confitures and pies will gather mould more than in others.



others. And I am persuaded, that a piece of raw flesh or fish will sooner corrupt in some airs than in others. They be noble experiments that can make this discovery; for they serve for a natural divination of seasons, better than the astronomers can by their figures: and again, they teach men where to chuse their dwelling, for their better health.

*Experiment solitary touching encreasing of milk in milch beasts.*

778. THERE is a kind of stone about Bethlehem, which they grind to powder, and put into water, whereof cattle drink, which maketh them give more milk. Surely there would be some better trials made of mixtures of water in ponds for cattle, to make them more milch, or to fatten them, or to keep them from murrain. It may be chalk and nitre are of the best.

*Experiment solitary touching sand of the nature of glass.*

779. It is reported, that in the valley near the mountain Carmel in Judea there is a sand, which of all other hath most affinity with glass: inso much as other minerals laid in it turn to a glassy substance without the fire; and again, glass put into it turneth into the mother sand. The thing is very strange, if it be true: and it is likeliest to be caused by some natural furnace or heat in the earth: and yet they do not speak of any eruption of flames. It were good to try in glass-works, whether the crude materials of glass, mingled with glass already made, and remolten, do not facilitate the making of glass with less heat.

*Experiment solitary touching the growth of coral.*

780. IN the sea, upon the south-west of Sicily, much coral is found. It is a sub-marine plant. It hath no leaves: it brancheth only when it is under water; it is soft, and green of colour; but being brought into the air, it becometh hard and shining red, as we see. It is said also to have a white berry; but we find it not brought over with the coral. Belike it is cast away as nothing worth: enquire better of it, for the discovery of the nature of the plant.

*Experiment solitary touching the gathering of manna.*

781. THE manna of Calabria is the best, and in most plenty. They gather it from the leaf of the mulberry-tree; but not of such mulberry-trees as grow in the valleys. And manna falleth upon the leaves by night, as other dews do. It should seem, that before those dews come upon trees in the valleys, they dissipate and cannot hold out. It should seem also, the mulberry-leaf itself hath some coagulating virtue, which insinuateth the dew, for that it is not found upon other trees: and we see by the silk-worm which feedeth upon that leaf, what a dainty smooth juice it hath; and the leaves also (especially of the black mulberry) are somewhat bristly, which may help to preserve the dew. Certainly it were not amiss to observe a little better the dews that fall upon trees, or herbs, growing on mountains; for it may be, many dews fall, that spend before they come to the valleys. And I suppose, that he that would gather the best May-dew for medicine, should gather it from the hills.

*Experiment solitary touching the correcting of wine.*

782. IT is said, they have a manner to prepare their Greek wines, to keep them from fuming and inebriating, by adding some sulphur or allum: whereof the one is unctuous, and the other is astringent. And certain it is, that those two natures do best repress fumes. This experiment would be transferred unto other wine and strong beer, by putting in some like substances while they work; which may make them both to fume less, and to inflame less.

*Experiment solitary touching the materials of wild-fire.*

783. IT is conceived by some (not improbably) that the reason why wild-fires (whereof the principal ingredient is bitumen) do not quench with water, is, for that the first concretion of bitumen is a mixture of a fiery and watery substance: so is not sulphur. This appeareth, for that in the place near Puteoli, which they



they call the court of Vulcan, you shall hear under the earth a horrible thundering of fire and water conflicting together: and there break forth also spouts of boiling water. Now that place yieldeth great quantities of bitumen; whereas *Ætna*, and *Vesuvius*, and the like, which consist upon sulphur, shoot forth smoke, and ashes, and pumice, but no water. It is reported also, that bitumen mingled with lime, and put under water, will make as it were an artificial rock; the substance becometh so hard.

*Experiment solitary touching plaister growing as hard as marble.*

784. THERE is a cement, compounded of flour, whites of eggs, and stone powdered, that becometh hard as marble: wherewith *Piscina Mirabilis*, near *Cuma*, is said to have the walls plaistered. And it is certain and tried, that the powder of load-stone and flint, by the addition of whites of eggs and gum-dragon, made into paste, will in a few days harden to the hardness of a stone.

*Experiment solitary touching judgment of the cure in some ulcers and hurts.*

785. IT hath been noted by the ancients, that in full or impure bodies, ulcers or hurts in the legs are hard to cure, and in the head more easy. The cause is, for that ulcers or hurts in the legs require desiccation, which by the defluxion of humours to the lower parts is hindered; whereas hurts and ulcers in the head require it not; but contrariwise dryness maketh them more apt to consolidate. And in modern observation, the like difference hath been found between Frenchmen and Englishmen; wherof the one's constitution is more dry, and the other's more moist. And therefore a hurt of the head is harder to cure in a Frenchman, and of the leg in an Englishman.

*Experiment solitary touching the healthfulness or unhealthfulness of the southern wind.*

786. IT hath been noted by the ancients, that southern winds, blowing much, without rain, do cause a feverous disposition of the year; but with rain, not. The cause is, for that southern winds do of themselves qualify the air, to be apt to cause fevers; but when showers are joined, they do refrigerate in part, and check the sultry heat of the southern wind. Therefore this holdeth not in the sea-coasts, because the vapour of the sea, without showers, doth refresh.

*Experiment solitary touching wounds.*

787. IT hath been noted by the ancients, that wounds which are made with brass, heal more easily than wounds made with iron. The cause is, for that brass hath in itself a sanative virtue; and so in the very instant helpeth somewhat: but iron is corrosive, and not sanative. And therefore it were good, that the instruments which are used by chirurgeons about wounds, were rather of brass than iron.

*Experiment solitary touching mortification by cold.*

788. IN the cold countries, when mens noses and ears are mortified, and (as it were) gangrened with cold, if they come to a fire they rot off presently. The cause is, for that the few spirits that remain in those parts, are suddenly drawn forth, and so putrefaction is made compleat. But snow put upon them helpeth; for that it preserveth those spirits that remain, till they can revive; and besides, snow hath in it a secret warmth: as the monk proved out of the text; *qui dat nivem sicut lanam, gelu sicut cineres spargit*. Whereby he did infer, that snow did warm like wool, and frost did fret like ashes. Warm water also doth good; because by little and little it openeth the pores, without any sudden working upon the spirits. This experiment may be transferred unto the cure of gangrenes, either coming of themselves, or induced by too much applying of opiates: wherein you must beware of dry heat, and resort to things that are refrigerant, with an inward warmth and virtue of cherishing.

*Experiment solitary touching weight.*

789. WEIGH iron and *aqua fortis* severally; then dissolve the iron in the *aqua fortis*,



*fortis*, and weigh the dissolution; and you shall find it to bear as good weight as the bodies did severally; notwithstanding a good deal of waste by a thick vapour that issueth during the working: which sheweth that the opening of a body doth increase the weight. This was tried once or twice, but I know not whether there were any error in the trial.

*Experiment solitary touching the super-natation of bodies.*

790. TAKE of *aqua fortis* two ounces, of quicksilver two drams (for that charge the *aqua fortis* will bear) the dissolution will not bear a flint as big as a nutmeg: yet (no doubt) the increasing of the weight of water will increase its power of bearing; as we see brine, when it is salt enough, will bear an egg. And I remember well a physician, that used to give some mineral baths for the gout, *etc.* and the body when it was put into the bath, could not get down so easily as in ordinary water. But it seemeth, the weight of the quicksilver, more than the weight of a stone, doth not compensate the weight of a stone, more than the weight of the *aqua fortis*.

*Experiment solitary touching the flying of unequal bodies in the air.*

791. LET there be a body of unequal weight (as of wood and lead, or bone and lead) if you throw it from you with the light end forward, it will turn, and the weightier end will recover to be forwards; unless the body be over-long. The cause is, for that the more dense body hath a more violent pressure of the parts from the first impulsion; which is the cause (though heretofore not found out, as hath been often said) of all violent motions: and when the hinder part moveth swifter (for that it less endureth pressure of parts) than the forward part can make way for it, it must needs be that the body turn over: for (turned) it can more easily draw forward the lighter part. Gallæus noteth it well, that if an open trough wherein water is, be driven faster than the water can follow, the water gathereth upon an heap towards the hinder end, where the motion began; which he supposeth (holding confidently the motion of the earth) to be the cause of the ebbing and flowing of the ocean; because the earth over-runneth the water. Which theory, though it be false, yet the first experiment is true. As for the inequality of the pressure of parts, it appeareth manifestly in this; that if you take a body of stone, or iron, and another of wood, of the same magnitude and shape, and throw them with equal force, you cannot possibly throw the wood so far as the stone or iron.

*Experiment solitary touching water, that it may be the medium of sounds.*

792. IT is certain (as it hath been formerly in part touched) that water may be the medium of sounds. If you dash a stone against a stone in the bottom of the water, it maketh a sound. So a long pole struck upon gravel in the bottom of the water, maketh a sound. Nay, if you should think that the sound cometh up by the pole, and not by the water, you shall find that an anchor let down by a rope, maketh a sound; and yet the rope is no solid body whereby the sound can ascend.

*Experiment solitary of the flight of the spirits upon odious objects.*

793. ALL objects of the senses which are very offensive do cause the spirits to retire; and upon their flight, the parts are (in some degree) destitute; and so there is induced in them a trepidation and horror. For sounds, we see that the grating of a saw, or any very harsh noise, will set the teeth on edge, and make all the body shiver. For tastes, we see, that in the taking of a potion, or pills, the head and the neck shake. For odious smells, the like effect followeth, which is less perceived, because there is a remedy at hand by stopping of the nose: but in horses, that can use no such help, we see the smell of a carrion, especially of a dead horse, maketh them fly away, and take on almost as if they were mad. For feeling, if you come out of the sun suddenly into a shade, there followeth a chillness or shivering in all the body. And even in sight, which hath (in effect) no odious object, coming into sudden darkness, induceth an offer to shiver.



*Experiment solitary touching the super-reflexion of echo's.*

794. THERE is in the city of Ticinum in Italy, a church that hath windows only from above: it is in length an hundred feet, in breadth twenty feet, and in height near fifty; having a door in the midst. It reporteth the voice twelve or thirteen times, if you stand by the close end-wall, over-against the door. The echo fadeth, and dieth by little and little, as the echo at Pont-Charenton doth. And the voice soundeth, as if it came from above the door. And if you stand at the lower end, or on either side of the door, the echo holdeth; but if you stand in the door, or in the midst just over-against the door, not. Note, that all echo's sound better against old walls than new; because they are more dry and hollow.

*Experiment solitary touching the force of imagination, imitating that of the sense.*

795. THOSE effects which are wrought by the percussion of the sense, and by things in fact, are produced likewise in some degree by the imagination. Therefore if a man see another eat sour or acid things, which set the teeth on edge, this object tainteth the imagination. So that he that seeth the thing done by another, hath his own teeth also set on edge. So if a man see another turn swiftly and long; or if he look upon wheels that turn, himself waxeth turn-sick. So if a man be upon an high place without rails, or good hold, except he be used to it, he is ready to fall: for imagining a fall, it putteth his spirits into the very action of a fall. So many upon the seeing of others bleed, or strangled, or tortured, themselves are ready to faint, as if they bled, or were in strife.

*Experiment solitary touching preservation of bodies.*

796. TAKE a flock-gilly-flower, and tie it gently upon a stick, and put them both into a sloop-glass full of quicksilver, so that the flower be covered: then lay a little weight upon the top of the glass, that may keep the stick down; and look upon them after four or five days; and you shall find the flower fresh, and the stalk harder, and less flexible, than it was. If you compare it with another flower gathered at the same time, it will be the more manifest. This sheweth that bodies do preserve excellently in quicksilver; and not preserve only, but by the coldness of the quicksilver indurate; for the freshness of the flower may be merely conservation; which is the more to be observed, because the quicksilver presseth the flower; but the stiffness of the stalk cannot be without induration, from the cold (as it seemeth) of the quicksilver.

*Experiment solitary touching the growth or multiplying of metals.*

797. IT is reported by some of the ancients, that in Cyprus there is a kind of iron, that being cut into little pieces, and put into the ground, if it be well watered, will encrease into greater pieces. This is certain, and known of old, that lead will multiply and encrease; as hath been seen in old statues of stone which have been put in cellars; the feet of them being bound with leaden bands; where (after a time) there appeared, that the lead did swell; inso much as it hanged upon the stone like warts.

*Experiment solitary touching the drowning of the more base metal in the more precious.*

798. I call drowning of metals, when that the baser metal is so incorporate with the more rich, as it can by no means be separated again; which is a kind of version, though false: as if silver should be inseparably incorporated with gold; or copper, and lead, with silver. The ancient electrum had in it a fifth of silver to the gold, and made a compound metal, as fit for most uses as gold, and more resplendent, and more qualified in some other properties; but then that was easily separated. This to do privily, or to make the compound pass for the rich metal simple, is an adulteration or counterfeiting: but if it be done avowedly, and without disguising, it may be a great saving of the richer metal. I remember to have heard of a man, skilful in metals, that a sixteenth part of silver incorporate with gold will not be recovered by any water of separation, except you put a greater quantity of silver to draw to it the less; which (he said) is the last refuge



in separations. But that is a tedious way, which no man (almost) will think on. This would be better enquired; and the quantity of the fifteenth turned to a twentieth; and likewise with some little additional, that may further the intrinsic incorporation. Note, that silver in gold will be detected by weight, compared with the dimension; but lead in silver (lead being the weightier metal) will not be detected, if you take so much the more silver, as will countervail the over-weight of the lead.

*Experiment solitary touching fixation of bodies.*

799. GOLD is the only substance, which hath nothing in it volatile, and yet melteth without much difficulty. The melting sheweth that it is not jejune, or scarce in spirit. So that the fixing of it is not want of spirit to fly out, but the equal spreading of the tangible parts, and the close coacervation of them: whereby they have the less appetite, and no means (at all) to issue forth. It were good therefore to try, whether glass remolten do lose any weight? for the parts in glass are evenly spread; but they are not so close as in gold; as we see by the easy admission of light, heat, and cold; and by the smallness of the weight. There be other bodies fixed which have little or no spirit; so as there is nothing to fly out; as we see in the stuff whereof coppels are made, which they put into furnaces, upon which fire worketh not: so that there are three causes of fixation; the even spreading both of the spirits and tangible parts, the closeness of the tangible parts, and the jejune-ness or extreme comminution of spirits: of which three, the two first may be joined with a nature liquefiable, the last not.

*Experiment solitary touching the restless nature of things in themselves, and their desire to change.*

800. IT is a profound contemplation in nature, to consider of the emptiness (as we may call it) or insatisfaction of several bodies, and of their appetite to take in others. Air taketh in lights, and sounds, and smells, and vapours; and it is most manifest, that it doth it with a kind of thirst, as not satisfied with its own former confidence; for else it would never receive them in so suddenly and easily. Water, and all liquors, do hastily receive dry and more terrestrial bodies, proportionable: and dry bodies, on the other side, drink in waters and liquors: so that (as it was well said by one of the ancients, of earthy and watery substances) one is a glue to another. Parchment, skins, cloth, *etc.* drink in liquors, though themselves be entire bodies, and not comminuted, as sand and ashes, nor apparently porous: metals themselves do receive in readily strong-waters; and strong-waters likewise do readily pierce into metals and stones: and that strong-water will touch upon gold, that will not touch upon silver; and *à converso*. And gold, which seemeth by the weight to be the closest and most solid body, doth greedily drink in quicksilver. And it seemeth, that this reception of other bodies is not violent: for it is (many times) reciprocal, and as it were with consent. Of the cause of this, and to what axiom it may be referred, consider attentively; for as for the pretty assertion, that matter is like a common trumpet that desireth all forms, it is but a wandering notion. Only flame doth not content itself to take in any other body, but either to overcome and turn another body into itself, as by victory; or itself to die, and go out.



## NATURAL HISTORY.

## CENTURY IX.

*Experiments in conjoint touching perception in bodies insensible, tending to natural divination or subtile trials.*

**I**T is certain, that all bodies whatsoever, though they have no sense, yet they have perception: for when one body is applied to another, there is a kind of election to embrace that which is agreeable, and to exclude or expel that which is ingrate: and whether the body be alterant, or altered, evermore a perception precedeth operation; for else all bodies would be alike one to another. And sometimes this perception, in some kind of bodies, is far more subtile than the sense; so that the sense is but a dull thing in comparison of it: we see a weather-glass will find the least difference of the weather, in heat, or cold, when men find it not. And this perception also is sometimes at distance, as well as upon the touch; as when the load-stone draweth iron; or flame fireth naphtha of Babylon, a great distance off. It is therefore a subject of a very noble enquiry, to enquire of the more subtile perceptions; for it is another key to open nature, as well as the sense, and sometimes better. And besides, it is a principal means of natural divination; for that which in these perceptions appeareth early, in the great effects cometh long after. It is true also, that it serveth to discover that which is hid, as well as to foretel that which is to come, as it is in many subtile trials; as to try whether seeds be old or new, the sense cannot inform; but if you boil them in water, the new seeds will sprout sooner: and so of water, the taste will not discover the best water; but the speedy consuming of it, and many other means, which we have heretofore set down, will discover it. So in all phylognomy, the lineaments of the body will discover those natural inclinations of the mind which dissimulation will conceal, or discipline will suppress. We shall therefore now handle only those two perceptions, which pertain to natural divination and discovery; leaving the handling of perception in other things to be disposed elsewhere. Now it is true, that divination is attained by other means; as if you know the causes, if you know the concomitants, you may judge of the effect to follow: and the like may be said of discovery; but we tye ourselves here to that divination and discovery chiefly, which is caused by an early or subtile perception.

The aptness or propension of air, or water, to corrupt or putrefy (no doubt) is to be found before it break forth into manifest effects of discases, blastings, or the like. We will therefore set down some prognosticks of pestilential and unwholesome years.

801. THE wind blowing much from the south without rain, and worms in the oak-apple, have been spoken of before. Also the plenty of frogs, grasshoppers, flies, and the like creatures bred of putrefaction, doth portend pestilential years.

802. GREAT and early heats in the spring (and namely in May) without winds, portend the same; and generally so do years with little wind or thunder.

803. GREAT droughts in summer, lasting till towards the end of August, and some gentle showers upon them, and then some dry weather again, do portend a pestilent summer the year following: for about the end of August all the sweetness of the earth, which goeth into plants and trees, is exhaled (and much more if the August be dry) so that nothing then can breathe forth of the earth but a gross vapour, which is apt to corrupt the air: and that vapour, by the  
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first showers, if they be gentle, is released, and cometh forth abundantly. Therefore they that come abroad soon after those showers, are commonly taken with sickness: and in Africa, no body will stir out of doors after the first showers. But if the showers come vehemently, then they rather wash and fill the earth, than give it leave to breathe forth presently. But if dry weather come again, then it fixeth and continueth the corruption of the air, upon the first showers begun; and maketh it of ill influence, even to the next summer; except a very frosty winter discharge it, which seldom succeedeth such droughts.

804. THE lesser infections, of the small-pox, purple fevers, agues, in the summer precedent, and hovering all winter, do portend a great pestilence in the summer following; for putrefaction doth not rise to its height at once.

805. IT were good to lay a piece of raw flesh or fish in the open air; and if it putrefy quickly, it is a sign of a disposition in the air to putrefaction. And because you cannot be informed whether the putrefaction be quick or late, except you compare this experiment with the like experiment in another year, it were not amiss in the same year, and at the same time, to lay one piece of flesh or fish in the open air, and another of the same kind and bigness within doors: for I judge, that if a general disposition be in the air to putrefy, the flesh, or fish, will sooner putrefy abroad where the air hath more power, than in the house, where it hath less, being many ways corrected. And this experiment would be made about the end of March: for that season is likeliest to discover what the winter hath done, and what the summer following will do, upon the air. And because the air (no doubt) receiveth great tincture and infusion from the earth; it were good to try that exposing of flesh, or fish, both upon a stake of wood some height above the earth, and upon the flat of the earth.

806. TAKE May dew, and see whether it putrefy quickly or no; for that likewise may disclose the quality of the air, and vapour of the earth, more or less corrupted.

807. A DRY March and a dry May portend a wholesome summer, if there be a showering April between: but otherwise it is a sign of a pestilential year.

808. As the discovery of the disposition of the air is good for the prognosticks of wholesome and unwholesome years; so it is of much more use, for the choice of places to dwell in: at the least, for lodges, and retiring places for health: (for mansion-houses respect provisions as well as health) wherein the experiments above-mentioned may serve.

809. BUT for the choice of places, or seats, it is good to make trial, not only of aptness of air to corrupt, but also of the moisture and dryness of the air, and the temper of it, in heat or cold; for that may concern health diversly. We see that there be some houses, wherein sweet meats will relent, and baked meats will mould, more than in others; and wainscots will also sweat more; so that they will almost run with water: all which (no doubt) are caused chiefly by the moistness of the air in those seats. But because it is better to know it before a man buildeth his house than to find it after, take the experiments following.

810. LAY wool, or a sponge, or bread, in the place you would try, comparing it with some other places; and see whether it doth not moisten, and make the wool, or sponge, *etc.* more ponderous than the other: and if it do, you may judge of that place, as situate in a gross and moist air.

811. BECAUSE it is certain, that in some places, either by the nature of the earth, or by the situation of woods and hills, the air is more unequal than in others; and inequality of air is ever an enemy to health; it were good to take two weather-glasses, matches in all things, and to set them, for the same hours of one day, in several places, where no shade is, nor enclosures; and to mark when you set them, how far the water cometh; and to compare them, when you come again, how the water standeth then: and if you find them unequal, you may be sure that the place where the water is lowest is in the warmer air, and the other in the colder. And the greater the inequality be, of the ascent or descent of the water, the greater is the inequality of the temper of the air.

812. THE predictions likewise of cold and long winters, and hot and dry summers,

VOL. I.

T t t



summers, are good to be known; as well for the discovery of the causes, as for divers provisions. That of plenty of haws and hips, and briar-berries, hath been spoken of before. If waincot, or stone, that have used to sweat, be more dry in the beginning of winter, or the drops of the caves of houses come more slowly down than they use, it portendeth a hard and frosty winter. The cause is, for that it sheweth an inclination of the air to dry weather; which in winter is ever joined with frost.

813. GENERALLY a moist and cool summer portendeth a hard winter. The cause is, for that the vapours of the earth are not dissipated in the summer by the sun; and so they rebound upon the winter.

814. A HOT and dry summer, and autumn, and especially if the heat and drought extend far into September, portendeth an open beginning of winter; and colds to succeed toward the latter part of the winter, and the beginning of the spring: for till then, the former heat and drought bear the sway; and the vapours are not sufficiently multiplied.

815. AN open and warm winter portendeth a hot and dry summer: for the vapours disperse into the winter showers; whereas cold and frost keepeth them in, and transporteth them into the late spring, and summer following.

816. BIRDS that use to change countries at certain seasons, if they come earlier, do shew the temperature of weather, according to that country whence they came: as the winter birds (namely, woodcocks, feldsares, *etc.*) if they come earlier, and out of the northern countries, with us shew cold winters. And if it be in the same country, then they shew a temperature of season, like unto that season in which they come: as swallows, bats, cuckoos, *etc.* that come towards summer, if they come early, shew a hot summer to follow.

817. THE prognosticks, more immediate, of weather to follow soon after, are more certain than those of seasons. The resounding of the sea upon the shore; and the murmur of winds in the woods, without apparent wind, shew wind to follow; for such winds breathing chiefly out of the earth, are not at the first perceived, except they be pent by water or wood. And therefore a murmur out of caves likewise portendeth as much.

818. THE upper regions of the air perceive the collection of the matter of tempests and winds, before the air here below: and therefore the obscuring of the smaller stars, is a sign of tempest following. And of this kind you shall find a number of instances in our inquisition *De ventis*.

819. GREAT mountains have a perception of the disposition of the air to tempests, sooner than the valleys or plains below: and therefore they say in Wales, when certain hills have their night-caps on, they mean mischief. The cause is, for that tempests, which are for the most part bred above in the middle region (as they call it) are soonest perceived to collect in the places next it.

820. THE air, and fire, have subtle perceptions of wind rising, before men find it. We see the trembling of a candle will discover a wind that otherwise we do not feel; and the flexuous burning of flames doth shew the air beginneth to be unquiet; and so do coals of fire by casting off the ashes more than they use. The cause is, for that no wind at the first, till it hath struck and driven the air, is apparent to the sense: but flame is easier to move than air: and for the ashes, it is no marvel, though wind unperceived shake them off; for we usually try which way the wind bloweth, by casting up grass, or chaff, or such light things into the air.

821. WHEN wind expireth from under the sea, as it causeth some resounding of the water (whereof we spake before) so it causeth some light motions of bubbles, and white circles of froth. The cause is, for that the wind cannot be perceived by the sense, until there be an eruption of a great quantity from under the water; and so it getteth into a body: whereas in the first putting up it cometh in little portions.

822. WE spake of the ashes that coals cast off; and of grass and chaff carried by the wind; so any light thing that moveth when we find no wind, sheweth a wind at hand; as when feathers, or down of thistles, fly to and fro in the air.



For prognosticks of weather from living creatures, it is to be noted, that creatures that live in the open air (*sub dio*) must needs have a quicker impression from the air, than men that live most within doors; and especially birds who live in the air freest and clearest; and are aptest by their voice to tell tales what they find; and likewise by the motion of their flight to express the same.

823. WATER-fowls (as sea-gulls, moor-hens, *etc.*) when they flock and fly together from the sea towards the shores; and contrariwise, land birds (as crows, swallows, *etc.*) when they fly from the land to the waters, and beat the waters with their wings, do foretew rain and wind. The cause is, pleasure that both kinds take in the moistness and density of the air; and so desire to be in motion, and upon the wing, whithersoever they would otherwise go: for it is no marvel, that water-fowl do joy most in that air, which is likeliest water; and land birds also (many of them) delight in bathing, and moist air. For the same reason also, many birds do prune their feathers; and geese do gaggle; and crows seem to call upon rain: all which is but the comfort they seem to receive in the relenting of the air.

824. THE heron, when she soareth high (so as sometimes she is seen to pass over a cloud) sheweth winds: but kites flying aloft, shew fair and dry weather. The cause may be, for that they both mount most into the air of that temper wherein they delight: and the heron being a water-fowl, taketh pleasure in the air that is condensed; and besides, being but heavy of wing, needeth the help of the grosser air. But the kite affecteth not so much the grossness of the air, as the cold and freshness thereof; for being a bird of prey, and therefore hot, she delighteth in the fresh air; and (many times) flyeth against the wind; as trouts and salmons swim against the stream. And yet it is true also, that all birds find an ease in the depth of the air; as swimmers do in a deep water. And therefore when they are aloft, they can uphold themselves with their wings spread, scarce moving them.

825. FISHES, when they play towards the top of the water, do commonly foretel rain. The cause is, for that a fish hating the dry, will not approach the air till it groweth moist; and when it is dry, will fly it, and swim lower.

826. BEASTS do take comfort (generally) in a moist air; and it maketh them eat their meat better: and therefore sheep will get up betimes in the morning to feed against rain; and cattle, and deer, and conies, will feed hard before rain; and a heifer will put up her nose, and snuff in the air against rain.

827. THE trefoil against rain swelleth in the stalk; and so standeth more upright; for by wet, stalks do erect, and leaves bow down. There is a small red flower in the stubble-fields, which country people call the wincope; which if it open in the morning, you may be sure of a fair day to follow.

828. EVEN in men, aches, and hurts, and corns, do engrieve either towards rain, or towards frost: for the one maketh the humours more to abound; and the other maketh them sharper. So we see both extremes bring the gout.

829. WORMS, vermin, *etc.* do foretew (likewise) rain: for earth-worms will come forth, and moles will cast up more, and fleas bite more, against rain.

830. SOLID bodies likewise foretew rain. As stones and wainscot when they sweat: and boxes and pegs of wood, when they draw and wind hard; though the former be but from an outward cause; for that the stone, or wainscot, turneth and beateth back the air against itself; but the latter is an inward swelling of the body of the wood itself.

*Experiment Solitary touching the nature of appetite in the stomach.*

831. APPETITE is moved chiefly by things that are cold and dry; the cause is, for that cold is a kind of indigence of nature, and calleth upon supply; and so is dryness: and therefore all four things (as vinegar, juice of lemons, oil of vitriol, *etc.*) provoke appetite. And the disease which they call *appetitus caninus*, consisteth in the matter of an acid and glassy phlegm in the mouth of the stomach. Appetite is also moved by four things; for that four things induce a contraction in the nerves placed in the mouth of the stomach; which is a great cause of appetite. As for the cause why onions, and salt, and pepper, in baked meats,



meats, move appetite, it is by vellication of those nerves; for motion wheteth. As for wormwood, olives, capers, and others of that kind which participate of bitterness, they move appetite by absterſion. So as there be four principal cauſes of appetite; the refrigeration of the ſtomach joined with ſome dryneſs, contraction, vellication, and abſterſion; beſides hunger, which is an emptineſs; and yet over-ſatting doth (many times) cauſe the appetite to ceaſe; for that want of meat maketh the ſtomach draw humours, and ſuch humours as are light and cholerick, which quench appetite moſt.

*Experiment ſolitary touching ſweetneſs of odour from the rainbow.*

832. IT hath been obſerved by the ancients, that where a rainbow ſeemeth to hang over, or to touch, there breatheth forth a ſweet ſmell. The cauſe is, for that this happeneth but in certain matters, which have in themſelves ſome ſweetneſs; which the gentle dew of the rainbow doth draw forth: and the like do ſoft ſhowers; for they alſo make the ground ſweet: but none are ſo delicate as the dew of the rainbow where it falleth. It may be alſo that the water itſelf hath ſome ſweetneſs: for the rainbow conſiſteth of a glomeration of ſmall drops, which cannot poſſibly fall, but from the air that is very low; and therefore may hold the very ſweetneſs of the herbs and flowers, as a diſtill'd water: for rain, and other dew that fall from high, cannot preſerve the ſmell, being diſſipated in the drawing up; neither do we know, whether ſome water itſelf may not have ſome degree of ſweetneſs. It is true, that we find it ſenſibly in no pool, river, nor fountain; but good earth newly turned up, hath a freſhneſs and good ſcent; which water, if it be not too equal (for equal objects never move the ſenſe) may alſo have. Certain it is, that bay-ſalt, which is but a kind of water congealed, will ſometimes ſmell like violets.

*Experiment ſolitary touching ſweet ſmells.*

833. TO ſweet ſmells heat is requiſite, to concoct the matter; and ſome moiſture to ſpread the breath of them. For heat, we ſee that woods and ſpices are more odorate in the hot countries, than in the cold: for moiſture, we ſee that things too much dried, loſe their ſweetneſs: and flowers growing, ſmell better in a morning, or evening, than at noon. Some ſweet ſmells are deſtroyed by approach to the fire; as violets, wall-flowers, gilly-flowers, pinks; and generally all flowers that have cool and delicate ſpirits. Some continue both on the fire, and from the fire; as roſe-water, &c. Some do ſcarce come forth, or at leaſt not ſo pleaſantly, as by means of the fire; as juniper, ſweet gums, &c. and all ſmells that are enclosed in a ſoft body: but (generally) thoſe ſmells are the moſt grateful, where the degree of heat is ſmall; or where the ſtrength of the ſmell is allayed; for theſe things do rather woo the ſenſe, than ſatiate it. And therefore the ſmell of violets and roſes exceedeth in ſweetneſs that of ſpices and gums; and the ſtrongeſt ſort of ſmells are beſt in a weſt aſar off.

*Experiment ſolitary touching the corporal ſubſtance of ſmells.*

834. IT is certain, that no ſmell iſſueth, but with emiſſion of ſome corporal ſubſtance; not as it is in light, and colours, and in ſounds. For we ſee plainly, that ſmell doth ſpread nothing that diſtance that the other do. It is true, that ſome woods of oranges, and heaths of roſemary, will ſmell a great way into the ſea, perhaps twenty miles; but what is that, ſince a peal of ordinance will do as much, which moveth in a ſmall compaſs? Whereas thoſe woods and heaths are of vaſt ſpaces; beſides, we ſee that ſmells do adhere to hard bodies; as in perſuming of gloves, &c. which ſheweth them corporal; and do laſt a great while, which ſounds and light do not.

*Experiment ſolitary touching ſetid and fragrant odours.*

835. THE excrements of moſt creatures ſmell ill; chiefly to the ſame creature that voideth them: for we ſee, beſides that of man, that pigeons and horſes thrive beſt, if their houſes and ſtables be kept ſweet; and ſo of cage birds: and the cat burieth that which ſhe voideth: and it holdeth chiefly in thoſe beaſts which feed upon



upon flesh. Dogs (almost) only of beasts delight in fetid odours; which sheweth there is somewhat in their sense of smell, differing from the smells of other beasts. But the cause why excrements smell ill, is manifest; for that the body itself rejecteth them; much more the spirits: and we see that those excrements that are of the first digestion, smell the worst; as the excrements from the belly: those that are from the second digestion less ill; as urine: and those that are from the third; yet less; for sweat is not so bad as the other two; especially of some persons, that are full of heat. Likewise most putrefactions are of an odious smell: for they smell either fetid or mouldy. The cause may be, for that putrefaction doth bring forth such a consistence, as is most contrary to the consistence of the body whilst it is found: for it is a mere dissolution of that form. Besides, there is another reason, which is profound: and it is, that the objects that please any of the senses, have (all) some equality, and (as it were) order in their composition: but where those are wanting, the object is ever ingrate. So mixture of many disagreeing colours is ever unpleasant to the eye: mixture of discordant sounds is unpleasant to the ear: mixture, or hotch-potch of many tastes, is unpleasant to the taste: harshness and ruggedness of bodies is unpleasant to the touch: now it is certain, that all putrefaction, being a dissolution of the first form, is a mere confusion and unformed mixture of the part. Nevertheless it is strange, and seemeth to cross the former observation, that some putrefactions and excrements do yield excellent odours, as civet and musk; and, as some think, ambergrease: for diverse take it (though improbably) to come from the sperm of a fish: and the moss we speak of from apple-trees, is little better than an excretion. The reason may be, for that there passeth in the excrements, and remaineth in the putrefactions, some good spirits; especially where they proceed from creatures that are very hot. But it may be also joined with a further cause, which is more subtle; and it is, that the senses love not to be over-pleased, but to have a commixture of somewhat that is in itself ingrate. Certainly, we see how discords in musick, falling upon concords, make the sweetest strains: and we see again, what strange tastes delight the taste; as red herrings, caviary, parmezan, *etc.* And it may be the same holdeth in smells: for those kind of smells that we have mentioned, are all strong, and do pull and vellicate the sense. And we find also, that places where men urine, commonly have some smell of violets: and urine, if one hath eaten nutmeg, hath so too.

THE slothful, general, and indefinite contemplations, and notions, of the elements and their conjugations; of the influences of heaven; of heat, cold, moisture, drought, qualities active, passive, and the like; have swallowed up the true passages, and processes, and affects, and consistences of matter and natural bodies. Therefore they are to be set aside, being but notional and ill limited; and definite axioms are to be drawn out of measured instances: and so assent to be made to the more general axioms by scale. And of these kinds of processes of natures, and characters of matter, we will now set down some instances.

*Experiment solitary touching the causes of putrefaction.*

836. ALL putrefactions come chiefly from the inward spirits of the body; and partly also from the ambient body, be it air, liquor, or whatsoever else. And this last, by two means: either by ingreſs of the substance of the ambient body into the body putrefied; or by excitation and sollicitation of the body putrefied, and the parts thereof, by the body ambient. As for the received opinion, that putrefaction is caused, either by cold, or peregrine and preternatural heat, it is but nugation: for cold in things inanimate, is the greatest enemy that is to putrefaction; though it extinguisheth vivification, which ever consisteth in spirits attenuate, which the cold doth congeal and coagulate. And as for the peregrine heat, it is thus far true, that if the proportion of the adventive heat be greatly predominant to the natural heat and spirits of the body, it tendeth to dissolution, or notable alteration. But this is wrought by emission, or suppression, or suffocation, of the native spirits; and also by the disordination and discomposure of the tangible parts, and other passages of nature, and not by a conflict of heats.



*Experiment solitary touching bodies imperfectly mixed.*

837. IN versions, or main alterations of bodies, there is a medium between the body, as it is at first, and the body refusing; which medium is *corpus imperfecte mixtum*, and is transitory, and not durable; as mists, smoaks, vapours, chylus in the stomach, living creatures in the first vivification: and the middle action, which produceth such imperfect bodies, is fitly called (by some of the ancients) *inquination*, or *inconcoction*, which is a kind of putrefaction: for the parts are in confusion, till they settle one way or other.

*Experiment solitary touching concoction and crudity.*

838. THE word concoction, or digestion, is chiefly taken into use from living creatures and their organs; and from thence extended to liquors and fruits, *etc.* Therefore they speak of meat concocted; urine and excrements concocted; and the four digestions (in the stomach, in the liver, in the arteries and nerves, and in the several parts of the body) are likewise called concoctions: and they are all made to be the works of heat: all which notions are but ignorant catches of a few things, which are most obvious to mens observations. The constantest notion of concoction is, that it should signify the degrees of alteration, of one body into another, from crudity to perfect concoction; which is the ultimity of that action or process: and while the body to be converted and altered is too strong for the efficient that should convert or alter it (whereby it resisteth and holdeth fast in some degree the first form or consistence) it is (all that while) crude and inconcoct; and the process is to be called crudity and inconcoction. It is true, that concoction is in great part the work of heat, but not the work of heat alone: for all things that further the conversion, or alteration (as rest, mixture of a body already concocted, *etc.*) are also means to concoction. And there are of concoction two periods; the one assimilation, or absolute conversion and subaction; the other maturation; whereof the former is most conspicuous in the bodies of living creatures; in which there is an absolute conversion and assimilation of the nourishment into the body: and likewise in the bodies of plants: and again in metals, where there is a full transmutation. The other (which is maturation) is seen in liquors and fruits; wherein there is not desired, nor pretended, an utter conversion, but only an alteration to that form which is most sought for man's use; as in clarifying of drinks, ripening of fruits, *etc.* But note, that there be two kinds of absolute conversions; the one is, when a body is converted into another body, which was before; as when nourishment is turned into flesh; that is it which we call assimilation. The other is, when the conversion is into a body merely new, and which was not before; as if silver should be turned to gold, or iron to copper: and this conversion is better called, for distinction sake, transmutation.

*Experiment solitary touching alterations, which may be called majors.*

839. THERE are also divers other great alterations of matter and bodies, besides those that tend to concoction and maturation; for whatsoever doth so alter a body, as it returneth not again to that it was, may be called *alteratio major*; as when meat is boiled, or roasted, or fried, *etc.* or when bread and meat are baked; or when cheese is made of curds, or butter of cream, or coals of wood, or bricks of earth; and a number of others. But to apply notions philosophical to plebeian terms; or to say, where the notions cannot fitly be reconciled, that there wanteth a term or nomenclature for it (as the ancients used) they be but shifts of ignorance; for knowledge will be ever a wandering and indigested thing, if it be but a commixture of a few notions that are at hand and occur, and not excited from sufficient number of instances, and those well collated.

THE consistences of bodies are very diverse: dense; rare, tangible, pneumatical; volatile, fixed; determinate, not determinate; hard, soft; cleaving, not cleaving; congelable, not congelable; liquefiable, not liquefiable; fragile, tough; flexible, inflexible; tractile, or to be drawn forth in length, intractile; porous, solid; equal and smooth, unequal; venous, and fibrous, and with grains, entire; and  
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divers others; all which to refer to heat, and cold, and moisture, and drought, is a compendious and inutile speculation. But of these see principally our *Abedarium naturae*; and otherwise *sparsim* in this our *Sylva Sylvarum*: nevertheless, in some good part, we shall handle divers of them now presently.

*Experiment solitary touching bodies liquefiable, and not liquefiable.*

840. LIQUEFIABLE, and not liquefiable, proceed from these causes: liquefaction is ever caused by the detention of the spirits, which play within the body, and open it. Therefore such bodies as are more turgid of spirit; or that have their spirits more straitly imprisoned; or, again, that hold them better pleased and content, are liquefiable: for these three dispositions of bodies do arrest the emission of the spirits. An example of the first two properties is in metals; and of the last in grease, pitch, sulphur, butter, wax, *etc.* The disposition not to liquefy proceedeth from the easy emission of the spirits, whereby the grosser parts contract; and therefore bodies jejune of spirits, or which part with their spirits more willingly, are not liquefiable; as wood, clay, free-stone, *etc.* But yet even many of those bodies that will not melt, or will hardly melt, will notwithstanding soften; as iron in the forge; and a stick bathed in hot ashes, which thereby becometh more flexible. Moreover there are some bodies which do liquefy or dissolve by fire; as metals, wax, *etc.* and other bodies which dissolve in water; as salt, sugar, *etc.* The cause of the former proceedeth from the opening of the spirits by heat: the cause of the latter proceedeth from the opening of the tangible parts, which desire to receive the liquor. Again, there are some bodies that dissolve with both; as gum, *etc.* And those be such bodies, as on the one side have good store of spirit; and on the other side, have the tangible parts indigent of moisture; for the former helpeth to the dilating of the spirits by the fire; and the latter stimulateth the parts to receive the liquor.

*Experiment solitary touching bodies fragile and tough.*

841. OF bodies, some are fragile; and some are tough, and not fragile; and in the breaking, some fragile bodies break but where the force is; some shatter and fly in many places. Of fragility, the cause is an impotency to be extended: and therefore stone is more fragile than metal; and so fictile earth is more fragile than crude earth; and dry wood than green. And the cause of this unaptness to extension, is the small quantity of spirits (for it is the spirit that furthereth the extension or dilatation of bodies) and it is ever concomitant with porosity, and with dryness in the tangible parts: contrariwise, tough bodies have more spirit, and fewer pores, and moister tangible parts: therefore we see that parchment or leather will stretch, paper will not; woollen cloth will tenter, linen scarcely.

*Experiment solitary touching the two kinds of pneumaticals in bodies.*

842. ALL solid bodies consist of parts of two several natures, pneumatical and tangible; and it is well to be noted, that the pneumatical substance is in some bodies the native spirit of the body, and in some other, plain air that is gotten in; as in bodies desiccate by heat or age: for in them, when the native spirit goeth forth, and the moisture with it, the air with time getteth into the pores. And those bodies are ever the more fragile; for the native spirit is more yielding and extensive (especially to follow the parts) than air. The native spirits also admit great diversity; as hot, cold, active, dull, *etc.* whence proceed most of the virtues and qualities (as we call them) of bodies: but the air intermixed is without virtues, and maketh things insipid, and without any extimulation.

*Experiment solitary touching concretion and dissolution of bodies.*

843. THE concretion of bodies is (commonly) solved by the contrary; as ice, which is congealed by cold, is dissolved by heat; salt and sugar, which are excocted by heat, are dissolved by cold and moisture. The cause is, for that these operations are rather returns to their former nature, than alterations; so that the contrary cureth. As for oil, it doth neither easily congeal with cold, nor thicken with heat. The cause of both effects, though they be produced by contrary



efficients, seemeth to be the same; and that is, because the spirit of the oil by either means exaleth little, for the cold keepeth it in; and the heat (except it be vehement) doth not call it forth. As for cold, though it take hold of the tangible parts, yet as to the spirits, it doth rather make them swell than congeal them: as when ice is congealed in a cup, the ice will swell instead of contracting, and sometimes rift.

*Experiment solitary touching hard and soft bodies.*

844. OF bodies, some (we see) are hard, and some soft: the hardness is caused (chiefly) by the jeuneness of the spirits, and their imparity with the tangible parts: both which, if they be in a greater degree, make them not only hard, but fragile and less enduring of pressure; as steel, stone, glass, dry wood, *etc.* Softness cometh (contrariwise) by the greater quantity of spirits (which ever helpeth to induce yielding and cession) and by the more equal spreading of the tangible parts, which thereby are more sliding and following; as in gold, lead, wax, *etc.* But note, that soft bodies (as we use the word) are of two kinds; the one, that easily giveth place to another body, but altereth not bulk, by rising in other places: and therefore we see that wax, if you put any thing into it, doth not rise in bulk, but only giveth place: for you may not think, that in printing of wax, the wax riseth up at all; but only the depressed part giveth place, and the other remaineth as it was. The other that altereth bulk in the cession, as water, or other liquors, if you put a stone or any thing into them, they give place (indeed) easily, but then they rise all over; which is a false cession; for it is in place, and not in body.

*Experiment solitary touching bodies ductile and tensile.*

845. ALL bodies ductile and tensile (as metals) that will be drawn into wires; wool and tow, that will be drawn into yarn or thread, have in them the appetite of not discontinuing strong, which maketh them follow the force that pulleth them out; and yet so, as not to discontinue or forsake their own body. Viscous bodies (likewise) as pitch, wax, bird-lime, cheese toasted, will draw forth and rope. But the difference between bodies fibrous, and bodies viscous, is plain; for all wool, and tow, and cotton, and silk (especially raw-silk) have, besides their desire of continuance, in regard of the tenuity of their thread, a greediness of moisture; and by moisture to join and incorporate with other thread; especially if there be a little wreathing; as appeareth by the twisting of thread, and the practice of twirling about of spindles. And we see also, that gold and silver thread cannot be made without twisting.

*Experiment solitary touching other passions of matter, and characters of bodies.*

846. THE differences of impressible and not impressible, figurable and not figurable; mouldable, and not mouldable; scissile and not scissile; and many other passions of matter, are plebeian notions, applied unto the instruments and uses which men ordinarily practise; but they are all but the effects of some of these causes following; which we will enumerate without applying them, because that will be too long. The first is the cession, or not cession of bodies, into a smaller space or room, keeping the outward bulk, and not flying up. The second is the stronger, or weaker appetite in bodies to continuity, and to fly discontinuity. The third is the disposition of bodies to contract, or not contract: and again, to extend, or not extend. The fourth is the small quantity, or great quantity of the pneumatical in bodies. The fifth is the nature of the pneumatical, whether it be native spirit of the body, or common air. The sixth is the nature of the native spirits in the body, whether they be active and eager, or dull and gentle. The seventh is the emission, or detention of the spirits in bodies. The eighth is the dilatation, or contraction of the spirits in bodies, while they are detained. The ninth is, the collocation of the spirits in bodies, whether the collocation be equal, or unequal; and again, whether the spirits be coacervate, or diffused. The tenth is the density, or rarity of the tangible parts. The eleventh is the equality, or inequality of the tangible parts. The twelfth is the digestion, or crudity of the tangible parts. The thirteenth is the nature of the matter, whether sulphureous



or mercurial, watery or oily, dry and terrestrial, or moist and liquid; which natures of sulphureous and mercurial, seem to be natures radical and principal. The fourteenth is the placing of the tangible parts in length or transverse (as it is in the warp and the woof of textiles) more inward, or more outward, etc. The fifteenth is the porosity or imporosity betwixt the tangible parts, and the greatness or smallness of the pores. The sixteenth is the collection and posture of the pores. There may be more causes; but these do occur for the present.

*Experiment solitary touching induration by sympathy.*

847. TAKE lead and melt it, and in the midst of it, when it beginneth to congeal, make a little dint or hole, and put quicksilver wrapped in a piece of linen into that hole, and the quicksilver will fix and run no more, and endure the hammer. This is a noble instance of induration, by consent of one body with another, and motion of excitation to imitate; for to ascribe it only to the vapour of lead, is less probable. *Quære*, whether the fixing may be in such a degree, as it will be figured like other metals? For if so, you may make works of it for some purposes, so they come not near the fire.

*Experiment solitary touching honey and sugar.*

848. SUGAR hath put down the use of honey, inasmuch as we have lost those observations and preparations of honey which the ancients had, when it was more in price. First, it seemeth that there was in old time tree-honey, as well as bee-honey, which was the tear or blood issuing from the tree: inasmuch as one of the ancients relateth, that in Trebisond there was honey issuing from the box-trees, which made men mad. Again, in ancient time there was a kind of honey, which either of its own nature, or by art, would grow as hard as sugar, and was not so luscious as ours. They had also a wine of honey, which they made thus. They crushed the honey into a great quantity of water, and then strained the liquor; after they boiled it in a copper to the half; then they poured it into earthen vessels for a small time; and after turned it into vessels of wood, and kept it for many years. They have also at this day, in Russia, and those northern countries, mead simple, which (well made and seasoned) is a good wholesome drink, and very clear. They use also in Wales a compound drink of mead, with herbs and spices. But mean while it were good, in recompence of that we have lost in honey, there were brought in use a sugar-mead (for so we may call it) though without any mixture at all of honey; and to brew it, and keep it stale, as they use mead: for certainly, though it would not be so absterive, and opening, and solative a drink as mead; yet it will be more grateful to the stomach, and more lenitive, and fit to be used in sharp diseases: for we see, that the use of sugar in beer and ale, hath good effects in such cases.

*Experiment solitary touching the finer sort of base metals.*

849. IT is reported by the ancients, that there was a kind of steel in some places, which would polish almost as white and bright as silver. And that there was in India a kind of brass, which (being polished) could scarce be discerned from gold. This was in the natural use; but I am doubtful, whether men have sufficiently refined metals, which we count base; as whether iron, brass, and tin be refined to the height? But when they come to such a fineness, as serveth the ordinary use, they try no farther.

*Experiment solitary touching cements and quarries.*

850. THERE have been found certain cements under earth that are very soft; and yet, taken forth into the sun, harden as hard as marble: there are also ordinary quarries in Somersetshire, which in the quarry cut soft to any bigness, and in the building prove firm and hard.

*Experiment solitary touching the altering of the colour of hairs and feathers.*

851. LIVING creatures (generally) do change their hair with age, turning to  
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Vol. I. X x x



be grey and white: as is seen in men, though some earlier, some later; in horses that are dappled, and turn white; in old squirrels that turn grilly; and many others. So do some birds; as cygnets from grey turn white; hawks from brown turn more white. And some birds there be that upon their moulting do turn colour; as robin-red-breasts, after their moulting, grow to be red again by degrees; so do goldfinches upon the head. The cause is, for that moisture doth (chiefly) colour hair and feathers; and dryness turneth them grey and white; now hair in age waxeth dryer: so do feathers. As for feathers, after moulting, they are young feathers, and so all one as the feathers of young birds. So the beard is younger than the hair of the head, and doth (for the most part) wax hoary later. Out of this ground a man may devise the means of altering the colour of birds, and the retardation of hoary-hairs. But of this see in the fifth experiment.

*Experiment solitary touching the differences of living creatures, male and female.*

852. THE difference between male and female, in some creatures, is not to be discerned, otherwise than in the parts of generation: as in horses and mares, dogs and bitches, doves he and she, and others. But some differ in magnitude, and that diversely; for in most the male is the greater; as in man, pheasants, peacocks, turkeys, and the like: and in some few, as in hawks, the female. Some differ in the hair and feathers, both in the quantity, crispation and colour of them; as he-lions are hirsute, and have great manes: the she-lions are smooth like cats. Bulls are more crisp upon the forehead than cows; the peacock, and pheasant-cock, and goldfinch-cock, have glorious and fine colours; the hens have not. Generally the males in birds have the fairest feathers. Some differ in divers features; as bucks have horns, does none; rams have more wreathed horns than ewes; cocks have great combs and spurs, hens little or none; boars have great fangs, sows much less: the turkey-cock hath great and swelling gills, the hen hath less; men have generally deeper and stronger voices than women. Some differ in faculty; as the cocks amongst singing-birds are the best singers. The chief cause of all these (no doubt) is, for that the males have more strength of heat than the females; which appeareth manifestly in this, that all young creatures males are like females; and so are eunuchs, and geld creatures of all kinds, liker females. Now heat causeth greatness of growth, generally, where there is moisture enough to work upon: but if there be found in any creature (which is seen rarely) an over-great heat in proportion to the moisture, in them the female is the greater; as in hawks and sparrows. And if the heat be balanced with the moisture, then there is no difference to be seen between male and female; as in the instances of horses and dogs. We see also, that the horns of oxen and cows, for the most part, are larger than the bulls; which is caused by abundance of moisture, which in the horns of the bull faileth. Again, heat causeth pilosity and crispation, and so likewise beards in men. It also expelleth finer moisture, which want of heat cannot expel; and that is the cause of the beauty and variety of feathers. Again, heat doth put forth many excrescences, and much solid matter, which want of heat cannot do: and this is the cause of horns, and of the greatness of them; and of the greatness of the combs and spurs of cocks, gills of turkey-cocks, and fangs of boars. Heat also dilateth the pipes and organs, which causeth the deepness of the voice. Again, heat refineth the spirits, and that causeth the cock-singing-bird to excel the hen.

*Experiment solitary touching the comparative magnitude of living creatures.*

853. THERE be fishes greater than any beasts; as the whale is far greater than the elephant: and beasts are (generally) greater than birds. For fishes, the cause may be, that because they live not in the air, they have not their moisture drawn and soaked by the air and sun-beams. Also they rest always in a manner, and are supported by the water; whereas motion and labour do consume. As for the greatness of beasts, more than of birds, it is caused, for that beasts stay longer time in the womb than birds, and there nourish and grow; whereas



whereas in birds, after the egg laid, there is no further growth or nourishment from the female; for the setting doth vivify, and not nourish.

*Experiment solitary touching exossation of fruits.*

854. We have partly touched before the means of producing fruits without cores or stones. And this we add farther, that the cause must be abundance of moisture; for that the core and stone are made of a dry sap: and we see, that it is possible to make a tree put forth only in blossom, without fruit; as in cherries with double flowers; much more into fruit without stone or cores. It is reported, that a cion of an apple, grafted upon a colewort-stalk, sendeth forth a great apple without a core. It is not unlikely, that if the inward pith of a tree were taken out, so that the juice came only by the bark, it would work the effect. For it hath been observed, that in pollards, if the water get in on the top, and they become hollow, they put forth the more. We add also, that it is delivered for certain by some, that if the cion be grafted the small end downwards, it will make fruit have little or no cores and stones.

*Experiment solitary touching the melioration of tobacco.*

855. TOBACCO is a thing of great price, if it be in request: for an acre of it will be worth (as is affirmed) two hundred pounds by the year towards charge. The charge of making the ground, and otherwise, is great, but nothing to the profit; but the English tobacco hath small credit, as being too dull and earthy: nay, the Virginian tobacco, though that be in a hotter climate, can get no credit, for the same cause: so that a trial to make tobacco more aromatical, and better concocted, here in England, were a thing of great profit. Some have gone about to do it by drenching the English tobacco in a decoction or infusion of Indian tobacco: but those are but sophistifications and toys; for nothing that is once perfect, and hath run its race, can receive much amendment. You must ever resort to the beginnings of things for melioration. The way of maturation of tobacco must, as in other plants, be from the heat either of the earth, or of the sun: we see some leading of this in musk-melons, which are sown upon a hot bed dunged below, upon a bank turned upon the south sun, to give heat by reflexion; laid upon tiles, which increaseth the heat, and covered with straw to keep them from cold. They remove them also, which addeth some life: and by these helps they become as good in England, as in Italy or Provence. These, and the like means, may be tried in tobacco. Enquire also of the steeping of the roots in some such liquor as may give them vigour to put forth strong.

*Experiment solitary touching several heats working the same effects.*

856. HEAT of the sun for the maturation of fruits; yea, and the heat of vivification of living creatures, are both represented and supplied by the heat of fire; and likewise the heats of the sun, and life, are represented one by the other. Trees set upon the backs of chimneys do ripen fruit sooner. Vines, that have been drawn in at the window of a kitchen, have sent forth grapes ripe a month (at least) before others. Stoves at the back of walls bring forth oranges here with us. Eggs, as is reported by some, have been hatched in the warmth of an oven. It is reported by the ancients, that the ostrich layeth her eggs under sand, where the heat of the sun discloseth them.

*Experiment solitary touching swelling and dilatation in boiling.*

857. BARLEY in the boiling swelleth not much; wheat swelleth more; rice extremely; inasmuch as a quarter of a pint (unboiled) will arise to a pint boiled. The cause (no doubt) is, for that the more close and compact the body is, the more it will dilate: now barley is the most hollow; wheat more solid than that; and rice most solid of all. It may be also that some bodies have a kind of lentour, and more deperible nature than others; as we see it evident in coloration; for a small quantity of saffron will tinct more than a very great quantity of brass or wine.

*Experiment*



*Experiment solitary touching the dulcoration of fruits.*

858. FRUIT groweth sweet by rolling, or pressing them gently with the hand; as rolling pears, damascenes, *etc.* by rottenness; as medlars, services, sloes, hips, *etc.* by time; as apples, warden, pomegranates, *etc.* by certain special maturations; as by laying them in hay, straw, *etc.* and by fire; as in roasting, stewing, baking, *etc.* The cause of the sweetness by rolling and pressing, is emolliation, which they properly induce; as in beating of stock-fish, flesh, *etc.* by rottenness is, for that the spirits of the fruit by putrefaction gather heat, and thereby digest the harder part, for in all putrefactions there is a degree of heat: by time and keeping is, because the spirits of the body do ever feed upon the tangible parts, and attenuate them: by several maturations is, by some degree of heat; and by fire is, because it is the proper work of heat to refine, and to incorporate; and all sournels consisteth in some grossness of the body; and all incorporation doth make the mixture of the body more equal in all the parts; which ever induceth a milder taste.

*Experiment solitary touching flesh edible, and not edible.*

859. OF fleshes, some are edible; some, except it be in famine, not. For those that are not edible, the cause is, for that they have (commonly) too much bitterness of taste; and therefore those creatures, which are fierce and choleric, are not edible; as lions, wolves, squirrels, dogs, foxes, horses, *etc.* As for kine, sheep, goats, deer, swine, conies, hares, *etc.* we see they are mild and fearful. Yet it is true, that horses, which are beasts of courage, have been, and are eaten by some nations; as the Scythians were called Hippophagi; and the Chinese eat horse-flesh at this day; and some gluttons have used to have colts-flesh baked. In birds, such as are *carnivoræ*, and birds of prey, are commonly no good meat; but the reason is, rather the choleric nature of those birds, than their feeding upon flesh: for pewets, gulls, shovellers, ducks, do feed upon flesh, and yet are good meat. And we see, that those birds which are of prey, or feed upon flesh, are good meat, when they are very young; as hawks, rooks out of the nest, owls, *etc.* Man's flesh is not eaten. The reasons are three: first, because men in humanity do abhor it: secondly, because no living creature that dieth of itself is good to eat: and therefore the cannibals (themselves) eat no man's flesh, of those that die of themselves, but of such as are slain. The third is, because there must be (generally) some disparity between the nourishment and the body nourished; and they must not be over-near, or like: yet we see, that in great weaknesses and consumptions, men have been sustained with woman's milk: and Ficinus fondly (as I conceive) adviseth, for the prolongation of life, that a vein be opened in the arm of some wholesome young man, and the blood to be sucked. It is said, that witches do greedily eat man's flesh; which if it be true, besides a devilish appetite in them, it is likely to proceed, for that man's flesh may send up high and pleasing vapours, which may stir the imagination; and witches felicity is chiefly in imagination, as hath been said.

*Experiment solitary touching the salamander.*

860. THERE is an ancient received tradition of the salamander, that it liveth in the fire, and hath force also to extinguish the fire. It must have two things, if it be true, to this operation: the one a very close skin, whereby flame, which in the midst is not so hot, cannot enter; for we see that if the palm of the hand be anointed thick with white of egg, and then *aqua vitæ* be poured upon it and enflamed, yet one may endure the flame a pretty while. The other is some extreme cold, and quenching virtue in the body of that creature, which choaketh the fire. We see that milk quenqueth wild-fire better than water, because it entureth better.

*Experiment solitary touching the contrary operations of time, upon fruits and liquors.*

861. TIME doth change fruit (as apples, pears, pomegranates, *etc.*) from more  
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four to more sweet: but contrariwise liquors (even those that are of the juice of fruit) from more sweet to more sour; as wort, mulse, new verjuice, *etc.* The cause is, the congregation of the spirits together: for in both kinds the spirit is attenuated by time; but in the first kind it is more diffused, and more mastered by the grosser parts, which the spirits do but digest: but in drinks the spirits do reign, and finding less opposition of the parts, become themselves more strong; which causeth also more strength in the liquor; such as if the spirits be of the hotter sort, the liquor becometh apt to burn; but in time, it causeth likewise, when the higher spirits are evaporated, more sourness.

*Experiment solitary touching blows and bruises.*

862. It hath been observed by the ancients, that plates of metal, and especially of brass, applied presently to a blow, will keep it down from swelling. The cause is repercussion, without humefaction, or entrance of any body: for the plate hath only a virtual cold, which doth not search into the hurt; whereas all plaisters and ointments do enter. Surely, the cause that blows and bruises induce swellings, is, for that the spirits resorting to succour the part that laboureth, draw also the humours with them: for we see, that it is not the repulse and the return of the humour in the part stricken that causeth it; for that gouts and tooth-aches cause swelling, where there is no percussion at all.

*Experiment solitary touching the orrice root.*

863. THE nature of the orrice root is almost singular; for there be few odorous roots; and in those that are in any degree sweet, it is but the same sweetness with the wood or leaf: but the orrice is not sweet in the leaf; neither is the flower any thing so sweet as the root. The root seemeth to have a tender dainty heat; which when it cometh above ground to the sun and the air, vanisheth: for it is a great mollifier; and hath a smell like a violet.

*Experiment solitary touching the compression of liquors.*

864. It hath been observed by the ancients, that a great vessel full, drawn into bottles; and then the liquor put again into the vessel; will not fill the vessel again so full as it was, but that it may take in more liquor: and that this holdeth more in wine than in water. The cause may be trivial; namely, by the expence of the liquor, in regard some may stick to the sides of the bottles: but there may be a cause more subtle; which is, that the liquor in the vessel is not so much compressed as in the bottle; because in the vessel the liquor meeteth with liquor chiefly; but in the bottles a small quantity of liquor meeteth with the sides of the bottles, which compress it so that it doth not open again.

*Experiment solitary touching the working of water upon air contiguous.*

865. WATER, being contiguous with air, cooleth it, but moisteneth it not, except it vapour. The cause is, for that heat and cold have a virtual transition, without communication of substance; but moisture not: and to all madefaction there is required an imbibition: but where the bodies are of such several levity and gravity as they mingle not, there can follow no imbibition. And therefore, oil likewise lieth at the top of the water without commixture: and a drop of water running swiftly over a straw or smooth body, wetted not.

*Experiment solitary touching the nature of air.*

866. STAR-light nights, yea and bright moon-shine nights, are colder than cloudy nights. The cause is, the dryness and fineness of the air, which thereby becometh more piercing and sharp; and therefore great continents are colder than islands: and as for the moon, though itself inclineth the air to moisture, yet when it shineth bright, it argueth the air is dry. Also close air is warmer than open air; which (it may be) is, for that the true cause of cold is an expiration from the globe of the earth, which in open places is stronger; and again, air itself, if it be not altered by that expiration, is not without some secret degree of heat; as it is not likewise without some secret degree of light: for otherwise cats and owls



could not see in the night; but that air hath a little light, proportionable to the visual spirits of those creatures.

*Experiments in consort touching the eyes and sight.*

867. THE eyes do move one and the same way; for when one eye moveth to the nostril, the other moveth from the nostril. The cause is motion of consent, which in the spirits and parts spiritual is strong. But yet use will induce the contrary; for some can squint when they will: and the common tradition is, that if children be set upon a table with a candle behind them, both eyes will move outwards, as affecting to see the light, and so induce squinting.

868. WE see more exquisitely with one eye shut, than with both open. The cause is, for that the spirits visual unite themselves more, and so become stronger. For you may see, by looking in a glass, that when you shut one eye, the pupil of the other eye that is open, dilateth.

869. THE eyes, if the sight meet not in one angle, see things double. The cause is, for that seeing two things, and seeing one thing twice, worketh the same effect: and therefore a little pellet held between two fingers laid across, seemeth double.

870. PORE-BLIND men see best in the dimmer lights; and likewise have their sight stronger near hand, than those that are not pore-blind; and can read and write smaller letters. The cause is, for that the spirits visual in those that are pore-blind, are thinner and rarer than in others; and therefore the greater light dispereth them. For the same cause they need contracting; but being contracted, are more strong than the visual spirits of ordinary eyes are; as when we see through a lens, the sight is the stronger; and so is it when you gather the eye-lids somewhat close: and it is commonly seen in those that are pore-blind, that they do much gather the eye-lids together. But old men, when they would see to read, put the paper somewhat afar off: the cause is, for that old mens spirits visual, contrary to those of pore-blind men, unite not, but when the object is at some good distance from their eyes.

871. MEN see better, when their eyes are over-against the sun, or a candle, if they put their hand a little before their eye. The reason is, for that the glaring of the sun, or the candle, doth weaken the eye; whereas the light circumsused is enough for the perception. For we see, that an over-light maketh the eyes dazzle; insomuch as perpetual looking against the sun would cause blindness. Again, if men come out of a great light into a dark room; and contrariwise, if they come out of a dark room into a light room, they seem to have a mist before their eyes, and see worse than they shall do, after they have stayed a little while, either in the light, or in the dark. The cause is, for that the spirits visual are, upon a sudden change, disturbed and put out of order; and till they be recollected, do not perform their function well. For when they are much dilated by light, they cannot contract suddenly; and when they are much contracted by darkness, they cannot dilate suddenly. And excess of both these (that is, of the dilatation and contraction of the spirits visual) if it be long, destroyeth the eye. For as long looking against the sun, or fire, hurteth the eye by dilatation; so curious painting in small volumes, and reading of small letters, do hurt the eye by contraction.

872. IT hath been observed, that in anger the eyes wax red; and in blushing, not the eyes, but the ears, and the parts behind them. The cause is, for that in anger the spirits ascend and wax eager; which is most easily seen in the eyes, because they are translucent; though withal it maketh both the cheeks and the gills red; but in blushing, it is true the spirits ascend likewise to succour both the eyes and the face, which are the parts that labour: but then they are repulsed by the eyes, for that the eyes, in shame, do put back the spirits that ascend to them, as unwilling to look abroad: for no man in that passion doth look strongly, but dejectedly; and that repulsion from the eyes diverteth the spirits and bear more to the ears, and the parts by them.

873. THE objects of the sight may cause a great pleasure and delight in the spirits, but no pain, or great offence; except it be by memory, as hath been said. The glimpses and beams of diamonds that strike the eye; Indian feathers, that have



have glorious colours; the coming into a fair garden; the coming into a fair room richly furnished; a beautiful person; and the like; do delight and exhilarate the spirits much. The reason why it holdeth not in the offence, is, for that the sight is the most spiritual of the senses; whereby it hath no object gross enough to offend it. But the cause (chiefly) is, for that there be no active objects to offend the eye. For harmonical sounds, and discordant sounds, are both active and passive: so are sweet smells and stinks: so are bitter and sweet in tastes: so are over-hot and over-cold in touch: but blackness and darkness are indeed but privatives; and therefore have little or no activity. Somewhat they do contristate, but very little.

*Experiment solitary touching the colour of the sea, or other water.*

874. WATER of the sea, or otherwise, looketh blacker when it is moved, and whiter when it resteth. The cause is, for that by means of the motion, the beams of light pass not straight, and therefore must be darkened; whereas, when it resteth, the beams do pass straight. Besides, splendor hath a degree of whiteness; especially if there be a little repercussion: for a looking-glass with the steel behind, looketh whiter than glass simple. This experiment doeth seem to be driven farther, in trying by what means motion may hinder sight.

*Experiment solitary touching shell-fish.*

875. SHELL-FISH have been, by some of the ancients, compared and sorted with the *insecta*; but I see no reason why they should; for they have male and female as other fish have: neither are they bred of putrefaction; especially such as do move. Nevertheless it is certain, that oysters, and cockles, and mussels, which move not, have no discriminate sex. *Quære* in what time, and how they are bred? It seemeth that shells of oysters are bred where none were before; and it is tried, that the great horse-mussel, with the fine shell, that breedeth in ponds, hath bred within thirty years: but then, which is strange, it hath been tried, that they do not only gape and shut as the oysters do, but remove from one place to another.

*Experiment solitary touching the right side and the left.*

876. THE senses are alike strong, both on the right side and on the left; but the limbs on the right side are stronger. The cause may be, for that the brain, which is the instrument of sense, is alike on both sides; but motion, and habilities of moving, are somewhat holpen from the liver, which lieth on the right side. It may be also, for that the senses are put in exercise indifferently on both sides from the time of our birth; but the limbs are used most on the right side, whereby custom helpeth; for we see, that some are left-handed, which are such as have used the left hand most.

*Experiment solitary touching frictions.*

877. FRICTIONS make the parts more fleshy and full; as we see both in men, and in currying of horses, *etc.* The cause is, for that they draw greater quantity of spirits and blood to the parts; and again, because they draw the aliment more forcibly from within: and again, because they relax the pores, and so make better passage for the spirits, blood, and aliment; lastly, because they dissipate and digest any inutile or excrementitious moisture, which lieth in the flesh; all which help assimilation. Frictions also do more fill and impinguate the body, than exercise. The cause is, for that in frictions the inward parts are at rest; which in exercise are beaten (many times) too much: and for the same reason (as we have noted heretofore) galley-slaves are fat and fleshy, because they stir the limbs more, and the inward parts less.

*Experiment solitary touching globes appearing flat at distance.*

878. ALL globes afar off appear flat. The cause is, for that distance, being a secondary object of sight, is not otherwise discerned, than by more or less light; which disparity, when it cannot be discerned, all seemeth one: as it is



(generally) in objects not distinctly discerned; for so letters, if they be so far off as they cannot be discerned, shew but as a duskyish paper: and all engravings and embossings (as far off) appear plain.

*Experiment solitary touching shadows.*

879. THE uttermost parts of shadows seem ever to tremble. The cause is, for that the little motes which we see in the sun do ever stir, though there be no wind; and therefore those moving, in the meeting of the light and the shadow, from the light to the shadow, and from the shadow to the light, do shew the shadow to move, because the medium moveth.

*Experiment solitary touching the rolling and breaking of the seas.*

880. SHALLOW and narrow seas break more than deep and large. The cause is, for that, the impulsion being the same in both, where there is greater quantity of water, and likewise space enough, there the water rolleth and moveth, both more slowly, and with a soper rise and fall: but where there is less water, and less space, and the water dasheth more against the bottom, there it moveth more swiftly, and more in precipice; for in the breaking of the waves there is ever a precipice.

*Experiment solitary touching the dulcoration of salt water.*

881. IT hath been observed by the ancients, that salt water boiled, or boiled and cooled again, is more potable, than of itself raw: and yet the taste of salt in distillations by fire riseth not, for the distilled water will be fresh. The cause may be, for that the salt part of the water doth partly rise into a kind of scum on the top, and partly goeth into a sediment in the bottom; and so is rather a separation than an evaporation. But it is too gross to rise into a vapour; and so is a bitter taste likewise; for simple distilled waters, of wormwood, and the like, are not bitter.

*Experiment solitary touching the return of saltness in pits upon the sea-shore.*

882. IT hath been set down before, that pits upon the sea-shore turn into fresh water, by percolation of the salt through the sand: but it is farther noted, by some of the ancients, that in some places of Africa, after a time, the water in such pits will become brackish again. The cause is, for that after a time, the very sands through which the salt water passeth, become salt; and so the strainer itself is tainted with salt. The remedy therefore is, to dig still new pits, when the old wax brackish; as if you would change your strainer.

*Experiment solitary touching attraction by similitude of substance.*

883. IT hath been observed by the ancients, that salt water will dissolve salt put into it, in less time than fresh water will dissolve it. The cause may be, for that the salt in the precedent water doth, by similitude of substance, draw the salt new put in unto it; whereby it diffuseth in the liquor more speedily. This is a noble experiment, if it be true, for it sheweth means of more quick and easy infusions; and it is likewise a good instance of attraction by similitude of substance. Try it with sugar put into water formerly sugar'd, and into other water unsugar'd.

*Experiment solitary touching attraction.*

884. PUT sugar into wine, part of it above, part under the wine, and you shall find (that which may seem strange) that the sugar above the wine will soften and dissolve sooner than that within the wine. The cause is, for that the wine entereth that part of the sugar which is under the wine, by simple infusion or spreading; but that part above the wine is likewise forced by sucking; for all spongy bodies expel the air and draw in liquor, if it be contiguous: as we see it also in sponges put part above the water. It is worthy the enquiry, to see how you may make more accurate infusions, by help of attraction.

*Experiment*



*Experiment solitary touching heat under earth.*

885. WATER in wells is warmer in winter than in summer; and so air in caves. The cause is, for that in the hither parts, under the earth, there is a degree of some heat (as appeareth in sulphureous veins, *etc.*) which shut close in (as in winter) is the more; but if it perspire (as it doth in summer) it is the less.

*Experiment solitary touching flying in the air.*

886. It is reported, that amongst the Leucadians, in ancient time, upon a superstition they did use to precipitate a man from a high cliff into the sea; tying about him with strings, at some distance, many great fowls; and fixing unto his body divers feathers, spread, to break the fall. Certainly many birds of good wing (as kites, and the like) would bear up a good weight as they fly; and spreading of feathers thin and close, and in great breadth, will likewise bear up a great weight, being even laid, without tilting upon the sides. The farther extension of this experiment for flying may be thought upon.

*Experiment solitary touching the dye of scarlet.*

887. THERE is in some places (namely in Cephalonia) a little shrub which they call shelly-oak, or dwarf-oak: upon the leaves whereof there riseth a ru-mer like a blister; which they gather, and rub out of it a certain red dust, that converteth (after a while) into worms, which they kill with wine (as is reported) when they begin to quicken: with this dust they dye scarlet.

*Experiment solitary touching maleficiating.*

888. IN Zant it is very ordinary to make men impotent to accompany with their wives. The like is practised in Gascony; where it is called *nouir Peguillette*. It is practised always upon the wedding-day. And in Zant the mothers themselves do it, by way of prevention; because thereby they hinder other charms, and can undo their own. It is a thing the civil law taketh knowledge of; and therefore is of no light regard.

*Experiment solitary touching the rise of water by means of flame.*

889. IT is a common experiment, but the cause is mistaken. Take a pot (or better a glass, because therein you may see the motion) and set a candle lighted in the bottom of a basin of water, and turn the mouth of the pot or glass over the candle, and it will make the water rise. They ascribe it to the drawing of heat; which is not true: for it appeareth plainly to be but a motion of *mere*, which they call *ne detur vacuum*; and it proceedeth thus. The flame of the candle, as soon as it is covered, being suffocated by the close air, lesseneth by little and little; during which time there is some little ascent of water, but not much: for the flame occupying less and less room, as it lesseneth, the water succeedeth. But upon the instant of the candle's going out, there is a sudden rise of a great deal of water; for that the body of the flame filleth no more place, and so the air and the water succeed. It worketh the same effect, if instead of water you put flour or sand into the basin: which sheweth, that it is not the flame's drawing the liquor as nourishment, as it is supposed; for all bodies are alike unto it, as it is ever in motion of *mere*; inasmuch as I have seen the glass, being held by the hand, hath lifted up the basin and all; the motion of *mere* did so clasp the bottom of the basin. That experiment, when the basin was lifted up, was made with oil, and not with water: nevertheless this is true, that at the very first setting of the mouth of the glass upon the bottom of the basin, it draweth up the water a little, and then standeth at a stay, almost till the candle's going out, as was said. This may shew some attraction at first: but of this we will speak more, when we handle attractions by heat.

*Experiments in consort touching the influences of the moon.*

Of the power of the celestial bodies, and what more secret influences they have, besides the two manifest influences of heat and light, we shall speak when



we handle experiments touching the celestial bodies: mean while we will give some directions for more certain trials, of the virtue and influences of the moon, which is our nearest neighbour.

The influences of the moon (most observed) are four; the drawing forth of heat; the inducing of putrefaction; the encrease of moisture; the exciting of the motions of spirits.

890. For the drawing forth of heat, we have formerly prescribed to take water warm, and to set part of it against the moon-beams, and part of it with a screen between; and to see whether that which standeth exposed to the beams will not cool sooner. But because this is but a small interposition (though in the sun we see a small shade doth much) it were good to try it when the moon shineth, and when the moon shineth not at all; and with water warm in a glass-bottle, as well as in a dish; and with cinders; and with iron red-hot, *etc.*

891. For the inducing of putrefaction, it were good to try it with flesh, or fish, exposed to the moon-beams; and again exposed to the air when the moon shineth not, for the like time; to see whether will corrupt sooner: and try it also with capon, or some other fowl, laid abroad, to see whether it will mortify and become tender sooner; try it also with dead flies, or dead worms, having a little water cast upon them, to see whether will putrefy sooner. Try it also with an apple, or orange, having holes made in their tops, to see whether will rot or mould sooner. Try it also with Holland cheese, having wine put into it, whether will breed mites sooner or greater.

892. For the increase of moisture, the opinion received is; that seeds will grow soonest; and hair, and nails, and hedges, and herbs, cut, *etc.* will grow soonest, if they be set or cut in the increase of the moon. Also that brains in rabbits, woodcocks, calves, *etc.* are fullest in the full of the moon: and so of marrow in the bones: and so of oysters and cockles, which of all the rest are the easiest tried if you have them in pits.

893. TAKE some seeds, or roots (as onions, *etc.*) and set some of them immediately after the change; and others of the same kind immediately after the full: let them be as like as can be; the earth also the same as near as may be; and therefore best in pots. Let the pots also stand where no rain or sun may come to them, lest the difference of the weather confound the experiment: and then see in what time the seeds set in the increase of the moon, come to a certain height; and how they differ from those that are set in the decrease of the moon.

894. It is like, that the brain of man waxeth moister and fuller upon the full of the moon: and therefore it were good for those that have moist brains, and are great drinkers, to take some of *lignum aloë's*, rosemary, frankincense, *etc.* about the full of the moon. It is like also, that the humours in mens bodies increase and decrease as the moon doth; and therefore it were good to purge some day or two after the full; for that then the humours will not replenish so soon again.

895. As for the exciting of the motion of the spirits, you must note that the growth of hedges, herbs, hair, *etc.* is caused from the moon, by exciting of the spirits, as well as by increase of the moisture. But for spirits in particular, the great instance is in lunacies.

896. THERE may be other secret effects of the influence of the moon, which are not yet brought into observation. It may be, that if it so fall out, that the wind be north, or north-east, in the full of the moon, it increaseth cold; and if south, or south-west, it disposeth the air for a good while to warmth and rain; which would be observed.

897. It may be, that children, and young cattle, that are brought forth in the full of the moon, are stronger and larger than those that are brought forth in the wane; and those also which are begotten in the full of the moon: so that it might be good husbandry to put rams and bulls to their females, somewhat before the full of the moon. It may be also, that the eggs laid in the full of the moon breed the better bird: and a number of the like effects which may be brought into observation. *Quære* also, whether great thunders and earthquakes be not most in the full of the moon.



*Experiment solitary touching vinegar.*

898. THE turning of wine to vinegar is a kind of putrefaction: and in making of vinegar, they use to set vessels of wine over-against the noon-sun; which calleth out the more oily spirits, and leaveth the liquor more sour and hard. We see also, that burnt wine is more hard and astringent, than wine unburnt. It is said, that cyder in navigations under the line ripeneth, when wine or beer soureth. It were good to set a rundlet of verjuice over-against the sun in summer, as they do vinegar, to see whether it will ripen and sweeten.

*Experiment solitary touching creatures that sleep all winter.*

899. THERE be divers creatures that sleep all winter, as the bear, the hedgehog, the bat, the bee, *etc.* These all wax fat when they sleep, and egest not. The cause of their fattening during their sleeping time, may be the want of assimilating; for whatsoever assimilath not to flesh turneth either to sweat or fat. These creatures, for part of their sleeping time, have been observed not to stir at all; and for the other part, to stir, but not to remove. And they get warmth and close places to sleep in. When the Flemings wintered in Nova Zembla, the bears about the middle of November went to sleep; and then the foxes began to come forth, which durst not before. It is noted by some of the ancients, that the she-bear breedeth, and lyeth-in with her young, during that time of rest: and that a bear big with young hath seldom been seen.

*Experiment solitary touching the generating of creatures by copulation, and by putrefaction.*

900. SOME living creatures are procreated by copulation between male and female: some by putrefaction; and of those which come by putrefaction, many do (nevertheless) afterwards procreate by copulation. For the cause of both generations: first, it is most certain, that the cause of all vivification is a gentle and proportionable heat, working upon a glutinous and yielding substance: for the heat doth bring forth spirit in that substance: and the substance being glutinous produceth two effects; the one, that the spirit is detained, and cannot break forth: the other, that the matter being gentle and yielding, is driven forwards by the motion of the spirits, after some swelling, into shape and members. Therefore all sperm, all menstruous substance, all matter whereof creatures are produced by putrefaction, have evermore a closeness, lentor, and sequacity. It seemeth therefore, that the generation by sperm only, and by putrefaction, have two different causes. The first is, for that creatures which have a definite and exact shape (as those have which are procreated by copulation) cannot be produced by a weak and casual heat; nor out of matter which is not exactly prepared according to the species. The second is, for that there is a greater time required for maturation of perfect creatures; for if the time required in vivification be of any length, then the spirit will exhale before the creature be mature; except it be inclosed in a place where it may have continuance of the heat, access of some nourishment to maintain it, and closeness that may keep it from exhaling: and such places are the wombs and matrices of the females. And therefore all creatures made of putrefaction, are of more uncertain shape; and are made in shorter time; and need not so perfect an enclosure, though some closeness be commonly required. As for the heathen opinion, which was, that upon great mutations of the world, perfect creatures were first engendered of concretion; as well as frogs, and worms, and flies, and such like, are now; we know it to be vain: but if any such thing should be admitted, discouraging according to sense, it cannot be, except you admit a chaos first, and commixture of heaven and earth. For the frame of the world, once in order, cannot effect it by any excels or casualty.



## NATURAL HISTORY.

## CENTURY X.

*Experiments in consort touching the transmission and influx of immaterial virtues, and the force of imagination.*

THE philosophy of Pythagoras (which was full of superstition) did first plant a monstrous imagination, which afterwards was, by the school of Plato and others, watered and nourished. It was, that the world was one, entire, perfect, living creature; inasmuch as Apollonius of Tyana, a Pythagorean prophet, affirmed, that the ebbing and flowing of the sea was the respiration of the world, drawing in water as breath, and putting it forth again. They went on, and inferred, that if the world were a living creature, it had a soul and spirit; which also they held, calling it *spiritus mundi*, the spirit or soul of the world: by which they did not intend God (for they did admit of a Deity besides) but only the soul or essential form of the universe. This foundation being laid, they might build upon it what they would; for in a living creature, though never so great (as for example, in a great whale) the sense and the affects of any one part of the body instantly make a transcurſion throughout the whole body: so that by this they did insinuate, that no distance of place, nor want of indispoſition of matter, could hinder magical operations; but that (for example) we might here in Europe have sense and feeling of that which was done in China: and likewise we might work any effect without and against matter; and this not holpen by the co-operation of angels or spirits, but only by the unity and harmony of nature. There were some also that staid not here; but went farther, and held; that if the spirit of man (whom they call the microcosm) do give a fit touch to the spirit of the world, by strong imaginations and beliefs, it might command nature; for Pargellus, and some darksome authors of magick, do ascribe to imagination exalted, the power of miracle-working faith. With these vast and bottomless follies men have been (in part) entertained.

But we, that hold firm to the works of God, and to the sense, which is God's lamp (*lucerna Dei spiraculum hominis*) will enquire with all sobriety and severity, whether there be to be found in the footsteps of nature, any such transmission and influx of immaterial virtues; and what the force of imagination is; either upon the body imaginant, or upon another body: wherein it will be like that labour of Hercules, in purging the stable of Augeas, to separate from superſtitious and magical arts and observations, any thing that is clean and pure natural; and not to be either contemned or condemned. And although we shall have occasion to speak of this in more places than one, yet we will now make some entrance thereinto.

*Experiments in consort, monitory, touching transmission of spirits, and the force of imagination.*

901. MEN are to be admonished, that they do not withdraw credit from the operations by transmission of spirits, and force of imagination, because the effects fail sometimes. For as in infection, and contagion from body to body (as the plague, and the like) it is most certain, that the infection is received (many times) by the body passive, but yet is by the strength and good disposition thereof repulsed and wrought out, before it be formed into a disease; so much more in impressions from mind to mind, or from spirit to spirit, the impression taketh, but is encountered and overcome by the mind and spirit, which is passive, before it



it work any manifest effect. And therefore they work most upon weak minds and spirits: as those of women; sick persons; superstitious and fearful persons; children, and young creatures:

*Nescio quis teneros oculus mihi fascinat agnos:*

The poet speaketh not of sheep, but of lambs. As for the weakness of the power of them upon kings and magistrates; it may be ascribed (besides the main, which is the protection of God over those that execute his place) to the weakness of the imagination of the imaginant: for it is hard for a witch or a forcerer to put on a belief that they can hurt such persons.

902. Men are to be admonished on the other side, that they do not easily give place and credit to these operations, because they succeed many times; for the cause of this success is (oft) to be truly ascribed unto the force of affection and imagination upon the body agent; and then by a secondary means it may work upon a diverse body: as for example; if a man carry a planet's seal, or a ring, or some part of a beast, believing strongly that it will help him to obtain his love; or to keep him from danger of hurt in fight; or to prevail in a suit, *etc.* it may make him more active and industrious; and again, more confident and persisting, than otherwise he would be. Now the great effects that may come of industry and perseverance (especially in civil business) who knoweth not? For we see audacity doth almost bind and mate the weaker sort of minds; and the state of human actions is so variable, that to try things oft, and never to give over, doth wonders: therefore it were a mere fallacy and mistaking to ascribe that to the force of imagination upon another body, which is but the force of imagination upon the proper body; for there is no doubt, but that imagination and vehement affection work greatly upon the body of the imaginant; as we shall shew in due place.

903. Men are to be admonished, that as they are not to mistake the causes of these operations; so much less they are to mistake the fact, or effect; and rashly to take that for done which is not done. And therefore as divers wise judges have prescribed and cautioned, men may not too rashly believe the confessions of witches, nor yet the evidence against them. For the witches themselves are imaginative, and believe oft-times they do that which they do not: and people are credulous in that point, and ready to impute accidents and natural operations to witch-craft. It is worthy the observing, that both in ancient and late times (as in the Thessalian witches, and the meetings of witches that have been recorded by so many late confessions) the great wonders which they tell, of carrying in the air, transforming themselves into other bodies, *etc.* are still reported to be wrought, not by incantations or ceremonies, but by ointments, and anointing themselves all over. This may justly move a man to think, that these fables are the effects of imagination: for it is certain, that ointments do all (if they be laid on any thing thick) by stopping of the pores, shut in the vapours, and send them to the head extremely. And for the particular ingredients of those magical ointments, it is like they are opiate and soporiferous. For anointing of the forehead, neck, feet, back-bone, we know, is used for procuring dead sleeps: and if any man say that this effect would be better done by inward potions; answer may be made, that the medicines, which go to the ointments, are so strong, that if they were used inwards, they would kill those that use them: and therefore they work potently, though outwards.

We will divide the several kinds of the operations by transmutation of spirits and imagination, which will give no small light to the experiments that follow. All operations by transmutation of spirits and imagination have this; that they work at distance, and not at touch; and they are these being distinguished.

904. The first is the transmutation or emission of the thinner and more airy parts of bodies; as in odours and infections; and this is, of all the rest, the most corporeal. But you must remember withal, that there be a number of those emissions, both wholesome and unwholesome, that give no smell at all: for the plague, many times when it is taken, giveth no scent at all: and there be many good and healthful airs that do appear by habitation and other proofs, that differ not in smell from other airs. And under this head you may place all imbibitions



of air, where the substance is material, odour-like; whereof some nevertheless are strange, and very suddenly diffused; as the alteration which the air receiveth in *Aegypt*, almost immediately, upon the rising of the river of Nilus, whereof we have spoken.

905. The second is the transmission or emission of those things that we call spiritual species; as visibles and sounds: the one whereof we have handled, and the other we shall handle in due place. These move swiftly, and at great distance; but then they require a medium well disposed, and their transmission is easily stopped.

906. The third is the emissions, which cause attraction of certain bodies at distance; wherein though the loadstone be commonly placed in the first rank, yet we think good to except it, and refer it to another head: but the drawing of amber and jet, and other electric bodies, and the attraction in gold of the spirit of quicksilver at distance; and the attraction of heat at distance; and that of fire to naphtha; and that of some herbs to water, though at distance; and divers others; we shall handle, but yet not under this present title, but under the title of attraction in general.

907. The fourth is the emission of spirits, and immateriate powers and virtues, in those things which work by the universal configuration and sympathy of the world; not by forms, or celestial influxes (as is vainly taught and received) but by the primitive nature of matter, and the seeds of things. Of this kind is (as we yet suppose) the working of the loadstone, which is by consent with the globe of the earth: of this kind is the motion of gravity, which is by consent of dense bodies with the globe of the earth: of this kind is some disposition of bodies to rotation, and particularly from east to west: of which kind we conceive the main float and refloat of the sea is, which is by consent of the universe, as part of the diurnal motion. These immateriate virtues have this property differing from others; that the diversity of the medium hindereth them not; but they pass through all mediums, yet at determinate distances. And of these we shall speak, as they are incident to several titles.

908. The fifth is the emissions of spirits; and this is the principal in our intention to handle now in this place; namely, the operation of the spirits of the mind of man upon other spirits: and this is of a double nature; the operations of the affections, if they be vehement; and the operation of the imagination, if it be strong. But these two are so coupled, as we shall handle them together; for when an envious, or amorous aspect, doth infect the spirits of another, there is joined both affection and imagination.

909. The sixth is, the influxes of the heavenly bodies, besides those two manifest ones, of heat and light. But these we will handle, where we handle the celestial bodies and motions.

910. The seventh is the operations of sympathy, which the writers of natural magick have brought into an art or precept: and it is this; that if you desire to superinduce any virtue or disposition upon a person, you should take the living creature, in which that virtue is most eminent, and in perfection; of that creature you must take the parts wherein that virtue chiefly is collocate: again, you must take those parts in the time and act when that virtue is most in exercise; and then you must apply it to that part of man wherein that virtue chiefly consisteth. As if you would superinduce courage and fortitude, take a lion or a cock; and take the heart, tooth, or paw of the lion; or the heart or spur of the cock: take those parts immediately after the lion or the cock have been in fight; and let them be worn upon a man's heart or wrist. Of these and such like sympathies, we shall speak under this present title.

911. The eighth and last is, an emission of immateriate virtues; such as we are a little doubtful to propound; it is so prodigious: but that it is so constantly avouched by many; and we have set it down as a law to ourselves, to examine things to the bottom; and not to receive upon credit, or reject upon improbabilities, until there hath passed a due examination. This is the sympathy of individuals: for as there is a sympathy of species, so (it may be) there is a sympathy of individuals: that is, that in things, or the parts of things that have been once contiguous or entire, there



there should remain a transmission of virtue from the one to the other; as between the weapon and the wound. Whereupon is blazed abroad the operation of *unguentum teli*: and so of a piece of lard, or stick of elder, *etc.* that if part of it be consumed or putrefied, it will work upon the other part severed. Now we will pursue the instances themselves.

*Experiments in consort touching emission of Spirits in vapour or exhalation, odour-like.*

912. The plague is many times taken without manifest sense, as hath been said. And they report, that where it is found, it hath a scent of the smell of a mellow apple; and (as some say) of May-flowers: and it is also received, that smells of flowers that are mellow and luscious, are ill for the plague; as white lilies, cowslips, and hyacinths.

913. The plague is not easily received by such as continually are about them that have the plague; as keepers of the sick, and physicians; nor again by such as take antidotes, either inward (as mithridate, juniper-berries, rue, leaf and seed, *etc.*) or outward (as angelica, zedoary, and the like, in the mouth; tar, *galbanum*, and the like, in perfume) nor again by old people, and such as are of a dry and cold complexion. On the other side, the plague taketh soonest hold of those that come out of a fresh air, and of those that are fasting, and of children; and it is likewise noted to go in a blood, more than to a stranger.

914. The most pernicious infection, next the plague, is the smell of the jail, when prisoners have been long, and close, and nastily kept; whereof we have had, in our time, experience, twice or thrice; when both the judges that sat upon the jail, and numbers of those that attended the business, or were present, sickened upon it, and died. Therefore it were good wisdom, that in such cases the jail were aired before they be brought forth.

915. Out of question, if such foul smells be made by art, and by the hand, they consist chiefly of man's flesh, or sweat, putrefied; for they are not those stinks which the nostrils straight abhor and expel, that are most pernicious; but such airs as have some similitude with man's body; and so insinuate themselves, and betray the spirits. There may be great danger in using such compositions, in great meetings of people within houses; as in churches, at arraignments, at plays and solemnities, and the like: for poisoning of air is no less dangerous than poisoning of water, which hath been used by the Turks in the wars, and was used by Emmanuel Comnenus towards the Christians, when they passed through his country to the Holy Land. And these empoisonments of air are the more dangerous in meetings of people, because the much breath of people doth further the reception of the infection; and therefore, where any such thing is feared, it were good those publick places were perfumed, before the assemblies.

916. The empoisonment of particular persons by odours, hath been reported to be in perfumed gloves, or the like: and it is like, they mingle the poison that is deadly, with some smells that are sweet, which also maketh it the sooner received. Plagues also have been raised by anointings of the chinks of doors, and the like; not so much by the touch, as for that it is common for men, when they find any thing wet upon their fingers, to put them to their nose; which men therefore should take heed how they do. The best is, that these compositions of infectious airs cannot be made without danger of death to them that make them. But then again, they may have some antidotes to save themselves; so that men ought not to be secure of it.

917. There have been in divers countries great plagues, by the putrefaction of great swarms of grasshoppers and locusts, when they have been dead and cast upon heaps.

918. It happeneth often in mines, that there are damps which kill, either by suffocation, or by the poisonous nature of the mineral: and those that deal much in refining, or other works about metals and minerals, have their brains hurt and stupified by the metalline vapours. Amongst which it is noted, that the spirits of quicksilver either fly to the skull, teeth, or bones; inasmuch as gilders use to have a piece of gold in their mouth, to draw the spirits of the quicksilver; which gold afterwards



afterwards they find to be whitened. There are also certain lakes and pits, such as that of Avernus, that poison birds (as is said) which fly over them, or men that stay too long about them.

919. THE vapour of char-coal, or sea-coal, in a close room, hath killed many; and it is the more dangerous, because it cometh without any ill smell, but stealeth on by little and little, inducing only a faintness, without any manifest strangling. When the Dutchmen winter'd at Nova Zembla, and that they could gather no more sticks, they fell to make fire of some sea-coal they had, wherewith (at first) they were much refresh'd; but a little after they had sate about the fire, there grew a general silence and lothness to speak amongst them; and immediately after, one of the weakest of the company fell down in a swoon; whereupon they doubting what it was, opened their door to let in air, and so saved themselves. The effect (no doubt) is wrought by the inspissation of the air; and so of the breath and spirits. The like ensueth in rooms newly plaister'd, if a fire be made in them; whereof no less man than the emperor Jovianus died.

920. VIDE the experiment 803. touching the infectious nature of the air, upon the first showers, after a long drought.

921. IT hath come to pass, that some apothecaries, upon stamping of cologuidas, have been put into a great scouring by the vapour only.

922. IT hath been a practice to burn a pepper they call guiney-pepper, which hath such a strong spirit, that it provoketh a continual sneezing in those that are in the room.

923. IT is an ancient tradition, that blear-eyes infect sound eyes; and that a menstruous woman, looking upon a glass, doth rust it: nay, they have an opinion which seemeth fabulous; that menstruous women going over a field or garden, do corn and herbs good, by killing the worms.

924. THE tradition is no less ancient, that the basilisk killeth by aspect; and that the wolf, if he see a man first, by aspect striketh a man hoarse.

925. PERFUMES convenient do dry and strengthen the brain, and stay rheums and fluxions, as we find in fume of rosemary dried, and *lignum aloës*; and *calamus* taken at the mouth and nostrils: and no doubt there be other perfumes that do moisten and refresh, and are fit to be used in burning agues, consumptions, and too much wakefulness; such as are rose-water, vinegar, lemon-peels, violets, the leaves of vines sprinkled with a little rose-water, *etc.*

926. THEY do use in sudden faintings and swoonings, to put a handkerchief with rose-water, or a little vinegar, to the nose; which gathereth together again the spirits, which are upon point to resolve and fall away.

927. TOBACCO comforteth the spirits, and dischargeth weariness, which it worketh partly by opening, but chiefly by the opiate virtue, which condenseth the spirits. It were good therefore to try the taking of fumes by pipes (as they do in tobacco) of other things; as well to dry and comfort, as for other intentions. I wish trial be made of the drying fume of rosemary, and *lignum aloës*, before-mentioned, in pipe; and so of nutmeg, and *selinum indum*, *etc.*

928. THE following of the plough hath been approved for refreshing the spirits, and procuring appetite; but to do it in the ploughing for wheat or rye, is not so good, because the earth has spent her sweet breath in vegetables put forth in summer. It is better therefore to do it when you sow barley. But because ploughing is tied to seasons, it is best to take the air of the earth new turned up, by digging with the spade, or standing by him that diggeth. Gentlewomen may do themselves much good by kneeling upon a cushion, and weeding. And these things you may practise in the best seasons; which is ever the early spring, before the earth putteth forth the vegetables, and in the sweetest earth you can chuse. It would be done also when the dew is a little off the ground, lest the vapour be too moist. I knew a great man that lived long, who had a clean clod of earth brought to him every morning as he sate in his bed; and he would hold his head over it a good pretty while. I commend also, sometimes, in digging of new earth, to pour in some Malmsey or Greek wine, that the vapour of the earth and wine together may comfort the spirits the more; provided always it be not taken for a heathen sacrifice, or libation to the Earth.

929. THEY



929. THEY have in physick use of pomanders, and knots of powders, for drying of rheums, comforting of the heart, provoking of sleep, *etc.* For though those things be not so strong as perfumes, yet you may have them continually in your hand; whereas perfumes you can take but at times: and besides, there be divers things that breathe better of themselves, than when they come to the fire; as *nigella romana*, the seed of *melanthium*, *animum*, *etc.*

930. THERE be two things, which (inwardly used) do cool and condense the spirits; and I with the same to be tried outwardly in vapours. The one is nitre, which I would have dissolved in Malmsey, or Greek wine, and so the smell of the wine taken; or if you would have it more forcible, pour of it upon a fire-pan, well heated, as they do rose-water and vinegar. The other is the distilled water of wild poppy, which I with to be mingled, at half, with rose-water, and so taken with some mixture of a few cloves in a perfuming-pan. The like would be done with the distilled water of saffron flowers.

931. SMELLS of musk, and amber, and civet, are thought to further venereous appetite; which they may do by the refreshing and calling forth of the spirits.

932. INCENSE and nidorous smells (such as were of sacrifices) were thought to intoxicate the brain, and to dispose men to devotion: which they may do by a kind of sadness, and contrition of the spirits; and partly also by heating and exalting them. We see, that amongst the Jews the principal perfume of the sanctuary was forbidden all common uses.

933. THERE be some perfumes prescribed by the writers of natural magick, which procure pleasant dreams: and some others (as they say) that procure rhetorical dreams; as the seeds of flax, flea-wort, *etc.*

934. It is certain, that odours do, in a small degree, nourish; especially the odour of wine: and we see men an hungred do love to smell hot bread. It is related, that Democritus, when he lay a dying, heard a woman in the house complain, that she should be kept from being at a feast and solemnity (which she much desired to see) because there would be a corps in the house; whereas upon he caused loaves of new bread to be sent for, and opened them, and poured a little wine into them; and so kept himself alive with the odour of them, till the feast was past. I knew a gentleman that would fast (sometimes) three or four, yea five days, without meat, bread, or drink; but the same man used to have continually a great wisp of herbs that he smelled on: and amongst those herbs, some esculent herbs of strong scent; as onions, garlick, leeks, and the like.

935. THEY do use, for the accident of the mother, to burn feathers, and other things of ill odour: and by those ill smells, the rising of the mother is put down.

936. THERE be airs which the physicians advise their patients to remove unto, in consumptions, or upon recovery of long sicknesses: which (commonly) are plain champains, but grassing, and not over-grown with heath, or the like; or else timber-shades, as in forests, and the like. It is noted also, that groves of bays do forbid pestilent airs; which was accounted a great cause of the wholesome air of Antiochia. There be also some soils that put forth odorate herbs of themselves; as wild thyme, wild marjoram, penny-royal, camomile; and in which the briar roses smell almost like musk-roses; which (no doubt) are signs that do discover an excellent air.

937. It were good for men to think of having healthful air in their houses; which will never be if the rooms be low roofed, or full of windows and doors; for the one maketh the air close, and not fresh; and the other maketh it exceeding unequal; which is a great enemy to health. The windows also should not be high up to the roof (which is in use for beauty and magnificence) but low. Also stone-walls are not wholesome; but timber is more wholesome; and especially brick: nay, it hath been used by some with great success to make their walls thick; and to put a lay of chalk between the bricks, to take away all dampness.



*Experiment solitary touching the emissions of spiritual Species which affect the senses.*

938. THESE emissions (as we said before) are handled, and ought to be handled by themselves under their proper titles: that is, visibles and audibles, each apart: in this place it shall suffice to give some general observations common to both. First, they seem to be incorporeal. Secondly, they work swiftly. Thirdly, they work at large distances. Fourthly, in curious varieties. Fifthly, they are not effective of any thing; nor leave no work behind them; but are energies merely: for their working upon mirrours, and places of echo, doth not alter any thing in those bodies; but it is the same action with the original, only repercussed. And as for the shaking of windows, or rarifying the air by great noises; and the heat caused by burning-glasses; they are rather concomitants of the audible and visible species, than the effects of them. Sixthly, they seem to be of so tender and weak a nature, as they effect only such a rare and attenuate substance, as is the spirit of living creatures.

*Experiments in consort touching the emission of immaterial virtues from the minds and spirits of men, either by affections, or by imaginations, or by other impressions.*

939. IT is mentioned in some stories, that where children have been exposed, or taken away young from their parents; and that afterwards they have approached to their parents presence, the parents (though they have not known them) have had a secret joy or other alteration thereupon.

940. THERE was an Egyptian soothsayer, that made Antonius believe, that his genius (which otherwise was brave and confident) was in the presence of Octavianus Cæsar poor and cowardly: and therefore he advised him, to absent himself (as much as he could) and remove far from him. This soothsayer was thought to be suborned by Cleopatra, to make him live in Ægypt, and other remote places from Rome. Howsoever the conceit of a predominant or mastering spirit of one man over another, is ancient, and received still, even in vulgar opinion.

941. THERE are conceits, that some men that are of an ill and melancholy nature, do incline the company into which they come, to be sad and ill-disposed; and contrariwise, that others that are of a jovial nature, do dispose the company to be merry and chearful. And again, that some men are lucky to be kept company with, and employed; and others unlucky. Certainly, it is agreeable to reason, that there are at the least some light effluxions from spirit to spirit, when men are in presence one with another, as well as from body to body.

942. IT hath been observed, that old men who have loved young company, and been conversant continually with them, have been of long life; their spirits (as it seemeth) being recreated by such company. Such were the ancient sophists and rhetoricians; which ever had young auditors and disciples; as Gorgias, Protagoras, Isocrates, *etc.* who lived till they were an hundred years old. And so likewise did many of the grammarians and school-masters; such as was Orbilus, *etc.*

943. AUDACITY and confidence doth, in civil business, so great effects, as a man may (reasonably) doubt, that besides the very daring, and earnestness, and persisting, and importunity, there should be some secret binding, and stooping of other mens spirits to such persons.

944. THE affections (no doubt) do make the spirits more powerful and active; and especially those affections which draw the spirits into the eyes: which are two; love, and envy, which is called *oculus malus*. As for love, the Platonists (some of them) go so far, as to hold that the spirit of the lover doth pass into the spirits of the person loved; which causeth the desire of return into the body whence it was emitted: whereupon followeth that appetite of contact and conjunction which is in lovers. And this is observed likewise, that the aspects which procure love, are not gazings, but sudden glances and dartings of the eye. As for envy, that emitteth some malign and poisonous spirit, which taketh hold of the spirit of another; and is likewise of greatest force when the cast of the

eye



eye is oblique. It hath been noted also, that it is most dangerous when an envious eye is cast upon persons in glory, and triumph, and joy. The reason whereof is, for that at such times the spirits come forth most into the outward parts, and so meet the percussion of the envious eye more at hand: and therefore it hath been noted, that after great triumphs, men have been ill-disposed for some days following. We see the opinion of fascination is ancient, for both effects; of procuring love; and sickness caused by envy: and fascination is ever by the eye. But yet if there be any such infection from spirit to spirit, there is no doubt but that it worketh by presence, and not by the eye alone; yet most forcibly by the eye.

945. FEAR and shame are likewise infective; for we see that the starting of one will make another ready to start: and when one man is out of countenance in a company, others do likewise blush in his behalf.

Now we will speak of the force of imagination upon other bodies; and of the means to exalt and strengthen it. Imagination, in this place, I understand to be, the representation of an individual thought. Imagination is of three kinds: the first joined with belief of that which is to come: the second joined with memory of that which is past; and the third is of things present, or as if they were present; for I comprehend in this, imaginations feigned, and at pleasure; as if one should imagine such a man to be in the vestments of a pope; or to have wings. I single out, for this time, that which is with faith or belief of that which is to come. The inquisition of this subject in our way (which is by induction) is wonderful hard: for the things that are reported are full of fables; and new experiments can hardly be made, but with extreme caution; for the reason which we will hereafter declare.

THE power of imagination is of three kinds; the first upon the body of the imaginant, including likewise the child in the mother's womb; the second is, the power of it upon dead bodies, as plants, wood, stone, metal, *etc.* the third is, the power of it upon the spirits of men and living creatures: and with this last we will only meddle.

THE problem therefore is, whether a man constantly and strangely believing, that such a thing shall be (as that such an one will love him; or that such an one will grant him his request; or that such an one shall recover a sickness; or the like) it doth help any thing to the effecting of the thing itself. And here again we must warily distinguish; for it is not meant (as hath been partly said before) that it should help by making a man more stout, or more industrious (in which kind a constant belief doth much) but merely by a secret operation, or binding, or changing the spirit of another: and in this it is hard (as we began to say) to make any new experiment; for I cannot command myself to believe what I will, and so no trial can be made. Nay it is worse; for whatsoever a man imagineth doubtingly, or with fear, must needs do hurt, if imagination have any power at all; for a man representeth that oftner that he feareth, than the contrary.

THE help therefore is, for a man to work by another, in whom he may create belief, and not by himself; until himself have found by experience, that imagination doth prevail; for then experience worketh in himself belief; if the belief that such a thing shall be, be joined with a belief that his imagination may procure it.

946. For example, I related one time to a man, that was curious and vain enough in these things, that I saw a kind of juggler, that had a pair of cards, and would tell a man what card he thought. This pretended learned man told me, it was a mistaking in me; "for (said he) it was not the knowledge of "the man's thought (for that is proper to God) but it was the enforcing of a "thought upon him, and binding his imagination by a stronger, that he could "think no other card." And thereupon he asked me a question or two, which I thought he did but cunningly, knowing before what used to be the feats of the juggler. "Sir (said he) do you remember whether he told the card the man "thought, himself, or bade another to tell it?" I answered (as was true) that



he bade another tell it. Whereunto he said; "So I thought: for (said he) himself could not have put on so strong an imagination; but by telling the other "the card (who believed that the juggler was some strange man, and could do "strange things) that other man caught a strong imagination." I hearkened unto him, thinking for a vanity he spoke prettily. Then he asked me another question: saith he, "Do you remember, whether he bade the man think the card first, and "afterwards told the other man in his ear what he should think; or else that he "did whisper first in the man's ear that should tell the card, telling that such a "man should think such a card, and after bade the man think a card?" I told him, as was true; that he did first whisper the man in the ear, that such a man should think such a card: upon this the learned man did much exult and please himself, saying; "Lo, you may see that my opinion is right: for if the man had "thought first, his thought had been fixed; but the other imagining first, bound "his thought." Which though it did somewhat sink with me, yet I made it lighter than I thought, and said; I thought it was confederacy between the juggler and the two servants: though (indeed) I had no reason so to think, for they were both my father's servants; and he had never played in the house before. The juggler also did cause a garter to be held up; and took upon him to know, that such an one should point in such a place of the garter; as it should be near so many inches to the longer end, and so many to the shorter; and still he did it, by first telling the imaginer, and after bidding the actor think.

HAVING told this relation, not for the weight thereof, but because it doth handsomely open the nature of the question, I return to that I said; that experiments of imagination must be practised by others, and not by a man's self. For there be three means to fortify belief: the first is experience; the second is reason; and the third is authority: and that of these which is far the most potent, is authority; for belief upon reason, or experience, will stagger.

947. For authority, it is of two kinds; belief in an art; and belief in a man. And for things of belief in an art, a man may exercise them by himself; but for belief in a man, it must be by another. Therefore if a man believe in astrology, and find a figure prosperous; or believe in natural magick, and that a ring with such a stone, or such a piece of a living creature, carried, will do good; it may help his imagination: but the belief in a man is far the more active. But howsoever, all authority must be out of a man's self, turned (as was said) either upon an art, or upon a man: and where authority is from one man to another, there the second must be ignorant, and not learned, or full of thoughts; and such are (for the most part) all witches and superstitious persons; whose beliefs, tied to their teachers and traditions, are no whit controlled, either by reason or experience; and upon the same reason, in magick, they use (for the most part) boys and young people, whose spirits easiest take belief and imagination.

Now to fortify imagination, there be three ways: the authority whence the belief is derived; means to quicken and corroborate the imagination; and means to repeat it and refresh it.

948. For the authority, we have already spoken: as for the second, namely the means to quicken and corroborate the imagination; we see what hath been used in magick (if there be in those practices any thing that is purely natural) as vestments, characters, words, seals; some parts of plants, or living creatures; stones; choice of the hour; gestures and motions; also incenses and odours; choice of society, which increaseth imagination; diets and preparations for some time before. And for words, there have been ever used, either barbarous words, of no sense, lest they should disturb the imagination; or words of similitude, that may second and feed the imagination: and this was ever as well in heathen charms, as in charms of latter times. There are used also Scripture words; for that the belief that religious texts and words have power, may strengthen the imagination. And for the same reason, Hebrew words (which amongst us is counted the holy tongue, and the words more mystical) are often used.

949. For the refreshing of the imagination (which was the third means of exalting it) we see the practices of magick, as in images of wax, and the like, that



## CENT. X. NATURAL HISTORY.

that should melt by little and little; or some other things buried in truck, that should putrefy by little and little; or the like: for so oft as the imaginant doth think of those things, so oft doth he represent to his imagination the effect of that he desireth.

950. If there be any power in imagination, it is less credible that it should be so incorporeal and immaterial a virtue, as to work at great distances, or through all mediums, or upon all bodies: but that the distance must be competent, the medium not adverse, and the body apt and proportionate. Therefore if there be any operation upon bodies in absence by nature, it is like to be conveyed from man to man, as fame is; as if a witch, by imagination, should hurt any afar off, it cannot be naturally; but by working upon the spirit of some that cometh to the witch; and from that party upon the imagination of another; and so upon another; till it come to one that hath resort to the party intended; and so by him to the party intended himself. And although they speak, that it sufficeth, to take a point, or a piece of the garment, or the name of the party, or the like; yet there is less credit to be given to those things, except it be by working of evil spirits.

THE experiments, which may certainly demonstrate the power of imagination upon other bodies, are few or none: for the experiments of witchcraft are no clear proofs; for that they may be by a tacite operation of malign spirits: we shall therefore be forced, in this enquiry, to resort to new experiments; wherein we can give only directions of trials, and not any positive experiments. And if any man think that we ought to have stayed till we had made experiment of some of them ourselves (as we do commonly in other titles) the truth is, that these effects of imagination upon other bodies have so little credit with us, as we shall try them at leisure; but in the mean time we will lead others the way.

951. WHEN you work by the imagination of another, it is necessary that he, by whom you work, have a precedent opinion of you, that you can do strange things; or that you are a man of art, as they call it; for else the simple affirmation to another, that this or that shall be, can work but a weak impression in his imagination.

952. IT were good, because you cannot discern fully of the strength of imagination in one man more than another, that you did use the imagination of more than one, that so you may light upon a strong one. As if a physician should tell three or four of his patient's servants, that their master shall surely recover.

953. THE imagination of one that you shall use (such is the variety of mens minds) cannot be always alike constant and strong; and if the success follow not speedily, it will faint and lose strength. To remedy this, you must pretend to him, whose imagination you use, several degrees of means, by which to operate: as to prescribe him that every three days, if he find not the success apparent, he do use another root, or part of a beast, or ring, *etc.* as being of more force; and if that fail, another; and if that, another, till seven times. Also you must prescribe a good large time for the effect you promise; as if you should tell a servant of a sick man, that his master shall recover, but it will be fourteen days ere he findeth it apparently, *etc.* All this to entertain the imagination that it waver less.

954. IT is certain, that potions, or things taken into the body; incenses and perfumes taken at the nostrils; and ointments of some parts, do (naturally) work upon the imagination of him that taketh them. And therefore it must needs greatly co-operate with the imagination of him whom you use, if you prescribe him, before he do use the receipt, for the work which he desireth, that he do take such a pill, or a spoonful of liquor; or burn such an incense; or anoint his temples, or the soles of his feet, with such an ointment, or oil; and you must chuse, for the composition of such pill, perfume, or ointment, such ingredients as do make the spirits a little more grois or muddy; whereby the imagination will fix the better.

955. THE body passive, and to be wrought upon (I mean not of the imaginant) is better wrought upon (as hath been partly touched) at some times, Vol. I.



than at others: as if you should prescribe a servant about a sick person (whom you have possessed that his master shall recover) when his master is fast asleep, to use such a root, or such a root. For imagination is like to work better upon sleeping men, than men awake; as we shall shew when we handle dreams.

956. We find in the art of memory, that images visible work better than other conceits: as if you would remember the word philosophy, you shall more surely do it, by imagining, that such a man (for men are best places) is reading upon Aristotle's *Physics*; than if you should imagine him to say, "I'll go study philosophy." And therefore this observation would be translated to the subject we now speak of: for the more lustrous the imagination is, it filleth and fixeth the better. And therefore I conceive, that you shall, in that experiment (whereof we spake before) of binding of thoughts, less fail, if you tell one that such an one shall name one of twenty men, than if it were one of twenty cards. The experiment of binding of thoughts would be diversified and tried to the full: and you are to note, whether it hit for the most part, though not always.

957. It is good to consider, upon what things imagination hath most force: and the rule (as I conceive) is, that it hath most force upon things that have the lightest and easiest motions. And therefore above all, upon the spirits of men: and in them, upon such affections as move lightest; as upon procuring of love; binding of lust, which is ever with imagination; upon men in fear; or men in irresolution; and the like. Whatsoever is of this kind would be thoroughly enquired. Trials likewise would be made upon plants, and that diligently: as if you should tell a man, that such a tree would die this year; and will him at these and these times to go unto it, to see how it thriveth. As for inanimate things, it is true, that the motions of shuffling of cards, or casting of dice, are very light motions: and there is a folly very usual, that gamblers imagine, that some that stand by them, bring them ill luck. There would be trial also made, of holding a ring by a thread in a glass, and telling him that holdeth it, before, that it shall strike so many times against the side of the glass, and no more; or of holding a key between two mens fingers, without a charm; and to tell those that hold it, that at such a name it shall go off their fingers: for these two are extreme light motions. And howsoever I have no opinion of these things, yet so much I conceive to be true; That strong imagination hath more force upon things living, or that have been living, than things merely inanimate: and more force likewise upon light and subtle motions, than upon motions vehement, or ponderous.

958. It is an usual observation, that if the body of one murdered be brought before the murtherer, the wounds will bleed afresh. Some do affirm, that the dead body, upon the presence of the murtherer, hath opened the eyes; and that there have been such like motions, as well where the parties murdered have been strangled, or drowned, as where they have been killed by wounds. It may be, that this participateth of a miracle, by God's just judgment, who usually bringeth murthers to light: but if it be natural, it must be referred to imagination.

959. The tying of the point upon the day of marriage, to make men impotent towards their wives, which (as we have formerly touched) is so frequent in Zant, and Gascony, if it be natural, must be referred to the imagination of him that tieth the point. I conceive it to have the less affinity with witchcraft, because not peculiar persons only (such as witches are) but any body may do it.

*Experiments in consort touching the secret virtue of sympathy and antipathy.*

960. THERE be many things that work upon the spirits of man by secret sympathy and antipathy: the virtues of precious stones worn, have been anciently and generally received, and curiously assigned to work several effects. So much is true; that stones have in them fine spirits, as appeareth by their splendour; and therefore they may work by consent upon the spirits of men, to comfort and exhilarate them. Those that are the best, for that effect, are the diamond, the emerald, the hyacinth oriental, and the gold stone, which is  
the



the yellow topaz. As for their particular proprieties, there is no credit to be given to them. But it is manifest, that light, above all things, excelleth in comforting the spirits of men: and it is very probable, that light varied doth the same effect, with more novelty. And this is one of the causes why precious stones comfort. And therefore it were good to have tinted lanthorns, or tinted screens, of glass coloured into green, blue, carnation, crimson, purple, *etc.* and to use them with candles in the night. So likewise to have round glasses, not only of glass coloured through, but with colours laid between crystals, with handles to hold in one's hand. Prisms are also comfortable things. They have of Paris-work, looking-glasses, bordered with broad borders of small crystal, and great counterfeit precious stones, of all colours, that are most glorious and pleasant to behold; especially in the night. The pictures of Indian feathers are likewise comfortable and pleasant to behold. So also fair and clear pools do greatly comfort the eyes and spirits, especially when the sun is not glaring, but over-cast; or when the moon shineth.

961. THERE be divers sorts of bracelets fit to comfort the spirits; and they be of three intentions; refrigerant, corroborant, and aperient. For refrigerant, I wish them to be of pearl, or of coral, as is used: and it hath been noted that coral, if the party that weareth it be indisposed, will wax pale; which I believe to be true, because otherwise dissemper of heat will make coral lose colour. I commend also beads, or little plates of *lapis lazuli*; and beads of nitre, either alone, or with some cordial mixture.

962. FOR corroboration and confortation, take such bodies as are of astringent quality, without manifest cold. I commend bead-amber, which is full of astringion, but yet is unctuous, and not cold; and is conceived to impinguate those that wear such beads: I commend also beads of hartshorn and ivory, which are of the like nature; also orange-beads; also beads of *lignum aloë*, macerated first in rose-water, and dried.

963. FOR opening, I commend beads, or pieces of the roots of *carduus benedictus*: also of the roots of piony the male; and of orrice; and of *calamus aromaticus*; and of rue.

964. THE cramp (no doubt) cometh of contraction of sinews; which is manifest, in that it cometh either by cold or dryness; as after consumptions, and long agues; for cold and dryness do (both of them) contract, and corrugate. We see also, that chafing a little above the place in pain, easeth the cramp; which is wrought by the dilatation of the contracted sinews by heat. There are in use, for the prevention of the cramp, two things; the one rings of sea-horse teeth worn upon the fingers; the other bands of green periwinkle (the herb) tied about the calf of the leg, or the thigh, *etc.* where the cramp useth to come. I do find this the more strange, because neither of these have any relaxing virtue, but rather the contrary. I judge therefore, that their working is rather upon the spirits, within the nerves, to make them strive less, than upon the bodily substance of the nerves.

965. I would have trial made of two other kinds of bracelets, for comforting the heart and spirits; the one of the trochisk of vipers, made into little pieces of beads; for since they do great good inwards (especially for pestilent agues) it is like they will be effectual outwards; where they may be applied in greater quantity. There would be trochisk likewise made of snakes; whose flesh dried is thought to have a very opening and cordial virtue. The other is, of beads made of the scarlet powder, which they call *kermes*; which is the principal ingredient in their cordial confection *alkermes*: the beads would be made up with amber-grease, and some pomander.

966. IT hath been long received, and confirmed by divers trials, that the root of the male-piony dried, tied to the neck, doth help the falling-sickness; and likewise the *incubus*, which we call the mare. The cause of both these diseases, and especially of the epilepsy from the stomach, is the grossness of the vapours which rise and enter into the cells of the brain: and therefore the working is by extreme and subtile attenuation; which that simple hath. I judge the like to be in *castoreum*, musk, rue-seed, *agnus castus* seed, *etc.*

967. THERE



967. THERE is a stone which they call the blood-stone, which worn is thought to be good for them that bleed at the nose: which (no doubt) is by astringent and cooling of the spirits. *Quære*, if the stone taken out of the toad's head, be not of the like virtue; for the toad loveth shade and coolness.

968. LIGHT may be taken from the experiment of the horse-tooth ring, and the garland of periwinkle, how that those things which assuage the stirre of the spirits, do help diseases contrary to the intention desired: for in the curing of the cramp, the intention is to relax the sinews; but the contraction of the spirits, that they strive less, is the best help: so to procure easy travails of women, the intention is to bring down the child; but the best help is, to stay the coming down too fast: whereunto they say, the toad-stone likewise helpeth. So in pestilent fevers, the intention is to expel the infection by sweat and evaporation: but the best means to do it is by nire, diascordium, and other cool things, which do for a time arrest the expulsion, till nature can do it more quietly. For as one saith prettily; "In the quenching of the flame of a pestilent ague, nature is like people that come "to quench the fire of a house; which are so busy, as one of them letteth another." Surely it is an excellent axiom, and of manifold use, that whatsoever appealeth the contention of the spirits, furthereth their action.

969. THE writers of natural magick commend the wearing of the spoil of a snake, for preserving of health. I doubt it is but a conceit; for that the snake is thought to renew her youth, by casting her spoil. They might as well take the beak of an eagle, or a piece of a hart's horn, because those renew.

970. IT hath been anciently received (for Pericles the Athenian used it) and it is yet in use, to wear little bladders of quicksilver, or tablets of arsenick, as preservatives against the plague: not as they conceive for any comfort they yield to the spirits, but for that being poisons themselves, they draw the venom to them from the spirits.

971. VIDE the experiments 95, 96, and 97, touching the several sympathies and antipathies for medicinal use.

972. IT is said, that the guts or skin of a wolf being applied to the belly, do cure the colick. It is true, that the wolf is a beast of great edacity and digestion; and so it may be the parts of him comfort the bowels.

973. WE see scare-crows are set up to keep birds from corn and fruit; it is reported by some, that the head of a wolf, whole, dried, and hanged up in a dove-house, will scare away vermin; such as are weasles, pole-cats, and the like. It may be the head of a dog will do as much; for those vermin with us, know dogs better than wolves.

974. THE brains of some creatures (when their heads are roasted) taken in wine, are said to strengthen the memory; as the brains of hares, brains of hens, brains of deers, *etc.* And it seemeth to be incident to the brains of those creatures that are fearful.

975. THE ointment that witches use, is reported to be made of the fat of children digged out of their graves; of the juices of smalage, wolf-bane, and cinquefoil, mingled with the meal of fine wheat. But I suppose, that the soporiferous medicines are likeliest to do it; which are henbane, hemlock, mandrake, moonshade, tobacco, opium, saffron, poplar-leaves, *etc.*

976. IT is reported by some, that the affections of beasts when they are in strength, do add some virtue unto inanimate things; as that the skin of a sheep devoured by a wolf, moveth itching; that a stone bitten by a dog in anger, being thrown at him, drunk in powder, provoketh choler.

977. IT hath been observed, that the diet of women with child doeth work much upon the infant; as if the mother eat quinces much, and coriander-seed (the nature of both which is to repress and stay vapours that ascend to the brain) it will make the child ingenious; and on the contrary side, if the mother eat (much) onions, or beans, or such vaporous food; or drink wine, or strong drink immoderately; or fast much; or be given to much musing (all which send or draw vapours to the head) it endangereth the child to become lunatick, or of imperfect memory; and I make the same judgment of tobacco often taken by the mother.



978. THE writers of natural magick report, that the heart of an ape, worn near the heart, comforteth the heart, and increaseth audacity. It is true, that the ape is a merry and bold beast. And that the same heart likewise of an ape, applied to the neck or head, helpeth the wit; and is good for the falling-sickness: the ape also is a witty beast, and hath a dry brain; which may be some cause of attenuation of vapours in the head. Yet it is said to move dreams also. It may be the heart of a man would do more, but that it is more against mens minds to use it; except it be in such as wear the reliques of saints.

979. THE flesh of a hedge-hog, dressed and eaten, is said to be a great drier: it is true, that the juice of a hedge-hog must needs be harsh and dry, because it putteth forth so many prickles: for plants also that are full of prickles are generally dry; as briars, thorns, berries; and therefore the ashes of an hedge-hog are said to be a great desiccative of fistula's.

980. MUMMY hath great force in stanching of blood; which, as it may be ascribed to the mixture of balms that are glutinous; so it may also partake of a secret propriety, in that the blood draweth man's flesh. And it is approved, that the mofs which groweth upon the skull of a dead man unburied, will stanch blood potently: and so do the dregs, or powder of blood, severed from the water, and dried.

981. IT hath been practised, to make white swallows, by anointing of the eggs with oil. Which effect may be produced, by the stopping of the pores of the shell, and making the juice that putteth forth the feathers afterwards, more pernicious. And it may be, the anointing of the eggs will be as effectual, as the anointing of the body; of which *vide* the experiment 93.

982. IT is reported, that the white of an egg, or blood, mingled with salt-water, doth gather the saltness, and maketh the water sweeter. This may be by adhesion; as in the sixth experiment of clarification: it may be also, that blood, and the white of an egg (which is the matter of a living creature) have some sympathy with salt: for all life hath a sympathy with salt. We see, that salt laid to a cut finger healeth it; so as it seemeth salt draweth blood, as well as blood draweth salt.

983. IT hath been anciently received, that the sea-hare hath an antipathy with the lungs (if it cometh near the body) and erodeth them. Whereof the cause is conceived to be, a quality it hath of heating the breath and spirits; as cantharides have upon the watry parts of the body, as urine and hydropical water. And it is a good rule, that whatsoever hath an operation upon certain kinds of matters, that, in man's body, worketh most upon those parts wherein that kind of matter aboundeth.

984. GENERALLY, that which is dead, or corrupted, or excerned, hath antipathy with the same thing when it is alive, and when it is found; and with those parts which do excern: as a carcase of man is most infectious and odious to man; a carion of an horse to an horse, *etc.* purulent matter of wounds, and ulcers, carbuncles, pocks, scabs, leprosy, to sound flesh; and the excrement of every species to that creature that excerneth them: but the excrements are less pernicious than the corruptions.

985. IT is a common experience, that dogs know the dog-killer; when, as in times of infection, some petty fellow is sent out to kill the dogs; and that though they have never seen him before, yet they will all come forth, and bark, and fly at him.

986. THE relations touching the force of imagination, and the secret instincts of nature, are so uncertain, as they require a great deal of examination, ere we conclude upon them. I would have it first thoroughly enquired, whether there be any secret passages of sympathy between persons of near blood; as parents, children, brothers, sisters, nurse-children, husbands, wives, *etc.* There be many reports in history, that upon the death of persons of such nearness, men have had an inward feeling of it. I myself remember, that being in Paris, and my father dying in London, two or three days before my father's death, I had a dream, which I told to divers English gentlemen; that my father's house in the country was plastered all over with black mortar. There is an opinion abroad (whether



idle or no I cannot say) that loving and kind husbands have a sense of their wives breeding child, by some accident in their own body.

987. NEXT to those that are near in blood, there may be the like passage, and instincts of nature, between great friends and enemies: and sometimes the revealing is unto another person, and not to the party himself. I remember Philipppus Commineus (a grave writer) reporteth, that the archbishop of Vienna (a reverend prelate) said (one day) after mass, to king Lewis the eleventh of France: "Sir, "your mortal enemy is dead;" what time duke Charles of Burgundy was slain at the battle of Granson against the Switzers. Some trial also would be made, whether pact or agreement do any thing; as if two friends should agree, that such a day in every week, they being in far distant places, should pray one for another; or should put on a ring or tablet, one for another's sake; whether if one of them should break their vow and promise, the other should have any feeling of it in absence.

988. If there be any force in imaginations and affections of singular persons, it is probable the force is much more in the joint imaginations and affections of multitudes: as if a victory should be won or lost in remote parts, whether is there not some sense thereof in the people whom it concerneth; because of the great joy or grief that many men are possessed with at once? Pius Quintus, at the very time when that memorable victory was won by the Christians against the Turks, at the naval battle of Lepanto, being then hearing of causes in consistory, brake off suddenly, and said to those about him, "It is now more time we should give thanks "to God, for the great victory he hath granted us against the Turks:" it is true, that victory had a sympathy with his spirit; for it was merely his work to conclude that league. It may be that revelation was divine; but what shall we say then to a number of examples amongst the Grecians and Romans? where the people being in theaters at plays, have had news of victories and overthrows, some few days before any messenger could come.

It is true, that that may hold in these things, which is the general root of superstition: namely, that men observe when things hit, and not when they miss; and commit to memory the one, and forget and pass over the other. But touching divination, and the misgiving of minds, we shall speak more when we handle in general the nature of minds, and souls, and spirits.

989. We have given formerly some rules of imagination; and touching the fortifying of the same. We have set down also some few instances and directions, of the force of imagination upon beasts, birds, *etc.* upon plants, and upon inanimate bodies: wherein you must still observe, that your trials be upon subtle and light motions, and not the contrary; for you will sooner by imagination bind a bird from singing, than from eating or flying; and I leave it to every man, to chuse experiments, which himself thinketh most commodious; giving now but a few examples of every of the three kinds.

990. Use some imaginant (observing the rules formerly prescribed) for binding of a bird from singing; and the like of a dog from barking. Try also the imagination of some, whom you shall accommodate with things to fortify it, in cock-fights, to make one cock more hardy, and the other more cowardly. It would be tried also in flying of hawks; or in courting of a deer, or hare, with greyhounds: or in horse races; and the like comparative motions: for you may sooner by imagination quicken or slack a motion, than raise or cease it; as it is easier to make a dog go slower, than to make him stand still, that he may not run.

991. In plants also you may try the force of imagination upon the lighter sort of motions: as upon the sudden fading, or lively coming up of herbs; or upon their bending one way or other; or upon their closing and opening, *etc.*

992. For inanimate things, you may try the force of imagination, upon staying the working of beer when the barn is put in; or upon the coming of butter or cheese, after the churning, or the rennet be put in.

993. It is an ancient tradition every where alledged, for example of secret propeties and influxes, that the *torpedo marina*, if it be touched with a long stick, doth stupify the hand of him that toucheth it. It is one degree of working at distance, to work by the continuance of a fit medium; as sound will be conveyed



veyed to the ear, by striking upon a bow-string, if the horn of the bow be held to the ear.

994. THE writers of natural magick do attribute much to the virtues that come from the parts of living creatures; so as they be taken from them, the creatures remaining still alive: as if the creature still living did infuse some intimate virtue and vigour into the part sever'd. So much may be true; that any part taken from a living creature newly slain, may be of greater force, than if it were taken from the like creature dying of itself, because it is fuller of spirit.

995. TRIAL would be made of the like parts of individuals in plants and living creatures; as to cut off a stock of a tree, and to lay that which you cut off to putrefy, to see whether it will decay the rest of the stock: or if you should cut off part of the tail, or leg of a dog or a cat, and lay it to putrefy, and so see whether it will fester, or keep from healing, the part which remaineth.

996. It is received, that it helpeth to continue love, if one wear a ring, or a bracelet, of the hair of the party beloved. But that may be by the exciting of the imagination: and perhaps a glove, or other like favour, may as well do it.

997. THE sympathy of individuals, that have been entire, or have touched, is of all others the most incredible: yet according unto our faithful manner of examination of nature, we will make some little mention of it. The taking away of warts, by rubbing them with somewhat that afterwards is put to waste and consume, is a common experiment; and I do apprehend it the rather, because of my own experience. I had from my childhood a wart upon one of my fingers: afterwards when I was about sixteen years old, being then at Paris, there grew upon both my hands a number of warts (at the least an hundred) in a month's space. The English ambassador's lady, who was a woman far from superstition, told me one day, she would help me away with my warts: whereupon she got a piece of lard with the skin on, and rubbed the warts all over with the fat side; and amongst the rest, that wart which I had had from my childhood; then she nailed the piece of lard, with the fat towards the sun, upon a post of her chamber-window, which was to the south. The success was, that within five weeks space all the warts went quite away: and that wart which I had so long endured, for company. But at the rest I did little marvel, because, they came in a short time, and might go away in a short time again: but the going away of that which had stayed so long, doth yet stick with me. They say the like is done by the rubbing of warts with a green elder stick, and then burying the stick to rot in muck. It would be tried with corns and wens, and such other excrescences. I would have it also tried with some parts of living creatures, that are nearest the nature of excrescences; as the combs of cocks, the spurs of cocks, the horns of beasts, *&c.* And I would have it tried both ways; both by rubbing those parts with lard, or elder, as before; and by cutting off some piece of those parts, and laying it to consume: to see whether it will work any effect towards the consumption of that part which was once joined with it.

998. It is constantly received and avouched, that the anointing of the weapon that maketh the wound, will heal the wound itself. In this experiment, upon the relation of men of credit (though myself, as yet, am not fully inclined to believe it) you shall note the points following: first, the ointment wherewith this is done, is made of divers ingredients; whereof the strangest and hardest to come by, are the moss upon the skull of a dead man unburied; and the fats of a bear and a bear killed in the act of generation. These two last I could easily suspect to be prescribed as a starting hole; that if the experiment proved not, it might be pretended that the beasts were not killed in the due time; for as for the moss, it is certain there is great quantity of it in Ireland, upon slain bodies, laid on heaps unburied. The other ingredients are, the blood-stone in powder, and some other things, which seem to have a virtue to stanch blood; as also the moss hath. And the description of the whole ointment is to be found in the chemical dispensatory of Crollius. Secondly, the same kind of ointment applied to the hurt itself, worketh not the effect; but only applied to the weapon. Thirdly (which I like well) they do not observe the confecting of the ointment under any certain constellation; which commonly is the excuse of magical medicines when they fail,



that they were not made under a fit figure of heaven. Fourthly, it may be applied to the weapon, though the party hurt be at great distance. Fifthly, it seemeth the imagination of the party to be cured, is not needful to concur; for it may be done without the knowledge of the party wounded: and thus much has been tried, that the ointment (for experiment's sake) hath been wiped off the weapon, without the knowledge of the party hurt, and presently the party hurt has been in great rage of pain, till the weapon was re-anointed. Sixthly, it is affirmed, that if you cannot get the weapon, yet if you put an instrument of iron, or wood, resembling the weapon, into the wound, whereby it bleedeth, the anointing of that instrument will serve and work the effect. This I doubt should be a device to keep this strange form of cure in request and use: because many times you cannot come by the weapon itself. Seventhly, the wound must be at first washed clean with white wine, or the party's own water; and then bound up close in fine linnen, and no more dressing renewed till it be whole. Eighthly, the sword itself must be wrapped up close, as far as the ointment goeth, that it taketh no wind. Ninthly, the ointment, if you wipe it off from the sword, and keep it, will serve again; and rather increase in virtue, than diminish. Tenthly, it will cure in far shorter time, than ointments of wounds commonly do. Lastly, it will cure a beast as well, as a man; which I like best of all the rest, because it subiecteth the matter to an easy trial.

*Experiment Solitary touching secret proprieties.*

999. I would have men know, that though I reprehend the easy passing over the causes of things, by ascribing them to secret and hidden virtues, and proprieties (for this hath arrested and laid asleep all true enquiry and indications) yet I do not understand, but that in the practical part of knowledge, much will be left to experience and probation, whereunto indication cannot so fully reach: and this not only *in specie*, but *in individuo*. So in physick; if you will cure the jaundice, it is not enough to say, that the medicine must not be cooling; for that will hinder the opening which the disease requireth: that it must not be hot; for that will exasperate choler: that it must go to the gall; for there is the obstruction which causeth the disease, *etc.* But you must receive from experience, that powder of *Chamaepytis*, or the like, drunk in beer, is good for the jaundice. So again a wise physician doth not continue still the same medicine to a patient; but he will vary, if the first medicine doth not apparently succeed: for of those remedies that are good for the jaundice, stone, agues, *etc.* that will do good in one body, which will not do good in another; according to the correspondence the medicine hath to the individual body.

*Experiment Solitary touching the general sympathy of mens spirits.*

1000. THE delight which men have in popularity, fame, honour, submission, and subjection of other mens minds, wills, or affections (although these things may be desired for other ends) seemeth to be a thing in itself, without contemplation of consequence, grateful and agreeable to the nature of man. This thing (surely) is not without some signification, as if all spirits and souls of men came forth out of one divine *limbus*; else why should men be so much affected with that which others think or say? The best temper of minds desireth good name and true honour: the lighter, popularity and applause: the more depraved, subjection and tyranny; as is seen in great conquerors and troublers of the world: and yet more in arch-hereticks; for the introducing of new doctrines is likewise an affectation of tyranny over the understandings and beliefs of men.





NEW

ATLANTIS.

A Work unfinished.

VOL. I.

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TO THE

# R E A D E R.

**T**HIS fable my lord devised, to the end that he might exhibit therein a model or description of a college, instituted for the interpreting of nature, and the producing of great and marvellous works, for the benefit of men; under the name of Solomon's house, or the College of the six days works. And even so far his lordship hath proceeded, as to finish that part. Certainly the model is more vast and high, than can possibly be imitated in all things; notwithstanding most things therein are within mens power to effect. His lordship thought also in this present fable, to have composed a frame of laws, or of the best state or mould of a common-wealth; but foreseeing it would be a long work, his desire of collecting the Natural History diverted him, which he preferred many degrees before it.

This work of the New Atlantis (as much as concerneth the English edition) his lordship designed for this place; in regard it hath so near affinity (in one part of it) with the preceding Natural History.

W. RAWLEY.

NEW



# NEW ATLANTIS.

WE sailed from Peru (where we had continued by the space of one whole year) for China and Japan, by the south sea, taking with us victuals for twelve months; and had good winds from the east, though soft and weak, for five months space and more. But then the wind came about, and settled in the west for many days, so as we could make little or no way, and were sometimes in purpose to turn back. But then again there arose strong and great winds from the south, with a point east, which carried us up (for all that we could do) towards the north: by which time our victuals failed us, though we had made good spare of them. So that finding ourselves in the midst of the greatest wilderness of waters in the world, without victual, we gave ourselves for lost men, and prepared for death. Yet we did lift up our hearts and voices to God above, who sheweth *his wonders in the deep*; beseeching him of his mercy, that as in the beginning he discovered the face of the deep, and brought forth dry land; so he would now discover land to us, that we might not perish. And it came to pass, that the next day about evening, we saw within a kenning before us, towards the north, as it were thick clouds, which did put us in some hope of land; knowing how that part of the south sea was utterly unknown; and might have islands or continents, that hitherto were not come to light. Wherefore we bent our course thither, where we saw the appearance of land all that night; and in the dawning of the next day, we might plainly discern that it was a land, flat to our sight, and full of bosage, which made it shew the more dark. And after an hour and a half's sailing, we entered into a good haven, being the port of a fair city; not great indeed, but well built, and that gave a pleasant view from the sea: and we thinking every minute long till we were on land, came close to the shore, and offered to land. But straightways we saw divers of the people with bastons in their hands (as it were) forbidding us to land; yet without any cries or fierceness, but only as warning us off, by signs that they made. Whereupon being not a little discomforted, we were advising with ourselves what we should do. During which time there made forth to us a small boat, with about eight persons in it; whereof one of them had in his hand a tipstaff of a yellow cane, tipped at both ends with blue, who came aboard our ship, without any shew of distrust at all. And when he saw one of our number present himself somewhat afore the rest, he drew forth a little scroll of parchment (somewhat yellower than our parchment, and shining like the leaves of writing tables, but otherwise soft and flexible) and delivered it to our foremost man. In which scroll were written in ancient Hebrew, and in ancient Greek, and in good Latin of the school, and in Spanish, these words; "Land ye not, none of you, and provide to be gone, from this coast, within sixteen days, except you have farther time given you: mean while, if you want fresh water, or victual, or help for your sick, or that your ship needeth repair, write down your wants, and you shall have that which belongeth to mercy." This scroll was signed with a stamp of cherubims wings, not spread, but hanging downwards, and by them a cross. This being delivered, the officer returned, and left only a servant with us to receive our answer. Consulting hereupon amongst ourselves, we were much perplexed. The denial of landing, and hasty warning us away, troubled us much; on the other side, to find that the people had languages, and were so full of humanity, did comfort us not a little. And above all, the sign of the cross to that instrument was to us a great rejoicing, and as it were a certain presage of good. Our answer was in the Spanish tongue; "That for our ship, it was well; for we had rather met with calms and contrary winds, than any tempests. For our sick, they were many, and in very ill case; so that if they were not permitted to land, they ran in danger of their lives." Our other wants we set down in particular; adding, "that we had some little store of merchandize, which



"which if it pleased them to deal for, it might supply our wants, without being chargeable unto them." We offered some reward in pistolets unto the servant, and a piece of crimson velvet to be presented to the officer: but the servant took them not, nor would scarce look upon them; and so left us, and went back in another little boat which was sent for him.

About three hours after we had dispatched our answer, there came towards us a person (as it seemed) of place. He had on him a gown with wide sleeves, of a kind of water-chambler, of an excellent azure colour, far more glossy than ours; his under apparel was green, and so was his hat, being in the form of a turban, daintily made, and not so huge as the Turkish turbans; and the bells of his hair came down below the brims of it. A reverend man was he to behold. He came in a boat, eight in some part of it, with four persons more only in that boat; and was followed by another boat, wherein were some twenty. When he was come within a slight shot of our ship, signs were made to us, that we should send forth some to meet him upon the water, which we presently did in our ship-boat, sending the principal man amongst us save one, and four of our number with him. When we were come within six yards of their boat, they called to us to stay, and not to approach farther; which we did. And thereupon the man, whom I before described, stood up, and with a loud voice in Spanish, asked, "Are ye Christians?" We answered, "we were;" fearing the less, because of the cross we had seen in the subscription. At which answer the said person lift up his right hand towards heaven, and drew it softly to his mouth (which is the gesture they use when they thank God) and then said: "If ye will swear (all of you) by the merits of the Saviour, that ye are no pirates; nor have shed blood lawfully nor unlawfully within forty days past; ye may have licence to come on land." We said, "we were all ready to take that oath." Whereupon one of those that were with him, being (as it seemed) a notary, made an entry of this act. Which done, another of the attendants of the great person, which was with him in the same boat, after his lord had spoken a little to him, said aloud; "My lord would have you know, that it is not of pride, or greatness, that he cometh not aboard your ship; but for that, in your answer, you declare, that you have many sick amongst you, he was warned by the conservator of health of the city, that he should keep a distance." We bowed ourselves towards him, and answered, "we were his humble servants; and accounted for great honour, and singular humanity towards us, that which was already done; but hoped well, that the nature of the sickness of our men was not infectious." So he returned; and a while after came the notary to us aboard our ship; holding in his hand a fruit of that country, like an orange, but of colour between orange-tawny and scarlet, which cast a most excellent odour. He used it (as it seemeth) for a preservative against infection. He gave us our oath; "By the name of Jesus, and his merits;" and after told us, that the next day by six of the clock in the morning we should be sent to, and brought to the Strangers house (so he called it) where we should be accommodated of things, both for our whole, and for our sick. So he left us; and when we offered him some pistolets, he smiling, said; "he must not be twice paid for one labour;" meaning (as I take it) that he had salary sufficient of the state for his service. For (as I after learned) they call an officer that taketh rewards, Twice-paid.

The next morning early, there came to us the same officer that came to us at first with his cane, and told us, "he came to conduct us to the Strangers house; and that he had prevented the hour, because we might have the whole day before us, for our business. For (said he) if you will follow my advice, there shall first go with me some few of you, and see the place, and how it may be made convenient for you; and then you may send for your sick, and the rest of your number, which ye will bring on land." We thanked him, and said, that this care, which he took of desolate strangers, God would reward. And so six of us went on land with him; and when we were on land, he went before us, and turned to us, and said; "be was but our servant, and our guide." He led us through three fair streets; and all the way we went,



went, there were gathered some people on both sides, standing in a row; but in so civil a fashion, as if it had been, not to wonder at us, but to welcome us; and divers of them, as we passed by them, put their arms a little abroad; which is their gesture, when they bid any welcome. The Strangers house is a fair and spacious house, built of brick, of somewhat a bluer colour than our brick; and with handsome windows, some of glass, some of a kind of cambrick oiled. He brought us first into a fair parlour above stairs, and then asked us, "What number of persons *"* we were? And how many sick?" We answered, "*"*we were in all (sick and whole) one and fifty persons, whereof our sick were seventeen." He desired us to have patience a little, and to stay till he came back to us, which was about an hour after; and then he led us to see the chambers, which were provided for us, being in number nineteen: they having cast it (as it seemeth) that four of those chambers, which were better than the rest, might receive four of the principal men of our company, and lodge them alone by themselves; and the other fifteen chambers were to lodge us two and two together. The chambers were handsome and cheerful chambers, and furnished civilly. Then he led us to a long gallery, like a dorture, where he shewed us all along the one side (for the other side was but wall and window) seventeen cells, very neat ones, having partitions of cedar wood. Which gallery and cells, being in all forty (many more than we needed) were instituted as an infirmary for sick persons. And he told us withal, that as any of our sick waxed well, he might be removed from his cell to a chamber: for which purpose there were set forth ten spare chambers, besides the number we spake of before. This done, he brought us back to the parlour, and lifting up his cane a little (as they do when they give any charge or command) said to us, "Ye are to know that the custom of the land requireth, that *"*after this day and to-morrow (which we give you for removing of your people from your ship) you are to keep within doors for three days. But let it not trouble you, nor do not think yourselves restrained, but rather left to your rest and ease. You shall want nothing, and there are six of our people appointed *"*to attend you, for any business you may have abroad." We gave him thanks, with all affection and respect, and said; "God surely is manifested in this land." We offered him also twenty pistolets; but he smiled, and only said; "What? twice *"*paid!" And so he left us. Soon after our dinner was served in; which was right good viands, both for bread and meat: better than any collegiate diet that I have known in Europe. We had also drink of three sorts, all wholesome and good; wine of the grape; a drink of grain, such as is with us our ale, but more clear: and a kind of cyder made of a fruit of that country; a wonderful pleasing and refreshing drink. Besides, there were brought in to us, great store of those scarlet oranges for our sick; which (they said) were an assured remedy for sickness taken at sea. There was given us also, a box of small grey or whitish pills, which they wished our sick should take, one of the pills every night before sleep; which (they said) would hasten their recovery. The next day, after that our trouble of carriage, and removing of our men, and goods out of our ship, was somewhat settled and quiet, I thought good to call our company together; and when they were assembled, said unto them; "My dear friends, let us know ourselves, and how it standeth with us. We are men cast on land, as Jonas *"*was, out of the whale's belly, when we were as buried in the deep: and now *"*we are on land, we are but between death and life; for we are beyond both *"*the old world and the new; and whether ever we shall see Europe, God only *"*knoweth. It is a kind of miracle hath brought us hither: and it must be little *"*less that shall bring us hence. Therefore in regard of our deliverance past, and *"*our danger present and to come, let us look up to God, and every man reform *"*his own ways. Besides we are come here amongst a christian people, full of *"*piety and humanity: let us not bring that confusion of face upon ourselves, as *"*to shew our vices, or unworthiness before them. Yet there is more: for they *"*have by commandment (though in form of courtesy) cloistered us within these *"*walls for three days: who knoweth whether it be not to take some taste of *"*our manners and conditions? And if they find them bad, to banish us straight- *"*ways; if good, to give us farther time. For these men, that they have given



“ us for attendance, may withal have an eye upon us. Therefore for God's love, and as we love the weale of our souls and bodies, let us so behave ourselves, as we may be at peace with God, and may find grace in the eyes of this people.” Our company with one voice thanked me for my good admonition, and promised me to live soberly and civilly, and without giving any the least occasion of offence. So we spent our three days joyfully, and without care, in expectation what would be done with us, when they were expired. During which time, we had every hour joy of the amendment of our sick; who thought themselves cast into some divine pool of healing; they mended so kindly, and so fast.

The morrow after our three days were past, there came to us a new man, that we had not seen before, clothed in blue as the former was, save that his turban was white, with a small red cross on the top. He had also a tippet of fine linen. At his coming in he did bend to us a little, and put his arms abroad. We of our parts saluted him in a very lowly and submissive manner; as looking that from him we should receive sentence of life or death. He desired to speak with some few of us: whereupon six of us only stayed, and the rest avoided the room. He said; “ I am by office governour of this House of Strangers, and by vocation I am a Christian priest; and therefore am come to you, to offer you my service, both as strangers, and chiefly as Christians. Some things I may tell you, which I think you will not be unwilling to hear. The state hath given you licence to stay on land for the space of six weeks: and let it not trouble you if your occasions ask farther time, for the law in this point is not precise; and I do not doubt but myself shall be able to obtain for you such farther time as may be convenient. Ye shall also understand, that the Strangers house is at this time rich, and much aforehand; for it hath laid up revenue these thirty seven years; for so long it is since any stranger arrived in this part: and therefore take ye no care; the state will defray you all the time you stay; neither shall you stay one day the less for that. As for any merchandize you have brought, ye shall be well used, and have your return either in merchandize, or in gold and silver: for to us it is all one. And if you have any other request to make, hide it not. For ye shall find, we will not make your countenance to fall by the answer ye shall receive. Only this I must tell you, that none of you must go above a *karran* (that is with them a mile and an half) from the walls of the city without special leave.” We answered, after we had looked a while one upon another, admiring this gracious and parent-like usage; “ that we could not tell what to say: for we wanted words to express our thanks; and his noble free offers left us nothing to ask. It seemed to us, that we had before us a picture of our salvation in heaven: for we that were a while since in the jaws of death, were now brought into a place, where we found nothing but consolations. For the commandment laid upon us, we would not fail to obey it, though it was impossible but our hearts should be inflamed to tread farther upon this happy and holy ground. We added; that our tongues should first cleave to the roofs of our mouths, ere we should forget, either his reverend person, or this whole nation, in our prayers.” We also most humbly besought him to accept of us as his true servants, by as just a right as ever men on earth were bounden, laying and presenting, both our persons, and all we had at his feet. He said; “ he was a priest, and looked for a priest's reward; which was our brotherly love, and the good of our souls and bodies.” So he went from us, not without tears of tenderness in his eyes; and left us also confused with joy and kindness, saying amongst ourselves, “ that we were come into a land of angels, which did appear to us daily, and prevent us with comforts which we thought not of, much less expected.”

The next day about ten of the clock, the governour came to us again, and after salutations said familiarly, that he was come to visit us; and called for a chair, and sat him down: and we being some ten of us (the rest were of the meaner sort, or else gone abroad) sat down with him. And when we were set, he began thus: “ We of this island of Benisalem (for so they call it in their language) have this; that by means of our solitary situation, and of the laws of secrecy which we have for our travellers, and our rare admission of strangers; we know well most



“ most part of the habitable world, and are ourselves unknown. Therefore be-  
 “ cause he that knoweth least is fittest to ask questions, it is more reason for the  
 “ entertainment of the time, that ye ask me questions, than that I ask you.” We  
 “ answered; “ That we humbly thanked him, that he would give us leave so to  
 “ do: and that we conceived by the taste we had already, that there was no  
 “ worldly thing on earth more worthy to be known, than the state of that happy  
 “ land. But above all (we said) since that we were met from the several ends of  
 “ the world, and hoped assuredly that we should meet one day in the kingdom of  
 “ heaven (for that we were both parts Christians) we desired to know (in respect  
 “ that land was so remote, and so divided by vast and unknown seas, from the  
 “ land where our Saviour walked on earth) who was the Apostle of that nation,  
 “ and how it was converted to the faith?” It appeared in his face that he took  
 “ great contentment in this our question: he said, “ Ye knit my heart to you, by  
 “ asking this question in the first place; for it sheweth that you *first seek the king-  
 “ dom of heaven*; and I shall gladly and briefly satisfy your demand.

“ About twenty years after the ascension of our Saviour, it came to pass, that  
 “ there was seen by the people of Rensusa (a city upon the eastern coast of our  
 “ island) within night (the night was cloudy and calm) as it might be some mile  
 “ into the sea, a great pillar of light; not sharp, but in form of a column, or cy-  
 “ linder, rising from the sea, a great way up towards heaven; and on the top of  
 “ it was seen a large cross of light, more bright and resplendent than the body of  
 “ the pillar. Upon which so strange a spectacle, the people of the city gathered  
 “ apace together upon the sands to wonder; and so after put themselves into a  
 “ number of small boats, to go nearer to this marvellous sight. But when the  
 “ boats were come within (about) sixty yards of the pillar, they found themselves  
 “ all bound, and could go no farther, yet so as they might move to go about,  
 “ but might not approach nearer: so as the boats stood all as in a theatre, behold-  
 “ ing this light as an heavenly sign. It so fell out, that there was in one of the  
 “ boats, one of the wise men of the society of Solomon’s house; which house or  
 “ college (my good brethren) is the very eye of this kingdom; who having a  
 “ while attentively and devoutly viewed and contemplated this pillar and cross,  
 “ fell down upon his face; and then raised himself upon his knees, and lifting  
 “ up his hands to heaven, made his prayers in this manner:

“ *Lord God of heaven and earth; thou hast vouchsafed of thy grace, to those of our  
 “ order, to know thy works of creation, and the secrets of them; and to discern (as  
 “ far as appertaineth to the generations of men) between divine miracles, works of  
 “ nature, works of art, and impossibles and illusions of all sorts. I do here acknowledge  
 “ and testify before this people, that the thing which we now see before our eyes, is thy  
 “ finger, and a true miracle; and forasmuch as we learn in our books, that thou  
 “ never werest miracles, but to a divine and excellent end (for the laws of nature are  
 “ thine own laws, and thou exceedest them not but upon great cause) we most humbly  
 “ beseech thee to prosper this great sign, and to give us the interpretation and use of it  
 “ in mercy; which thou dost in some part secretly promise, by sending it unto us.*

“ When he had made his prayer, he presently found the boat he was in move-  
 “ able and unbound; whereas all the rest remained still fast; and taking that for  
 “ an assurance of leave to approach, he caused the boat to be softly, and with  
 “ silence, rowed towards the pillar. But ere he came near it, the pillar and cross  
 “ of light brake up, and cast itself abroad, as it were into a firmament of many  
 “ stars; which also vanished soon after, and there was nothing left to be seen,  
 “ but a small ark or chest of cedar, dry, and not wet at all with water, though  
 “ it swam. And in the fore-end of it which was towards him, grew a small  
 “ green branch of palm; and when the wise man had taken it with all reverence  
 “ into his boat, it opened of itself, and there were found in it a book and a letter;  
 “ both written in fine parchment, and wrapped in sundons of linen. The book  
 “ contained all the canonical books of the Old and New Testament, according as  
 “ you have them (for we know well what the churches with you receive) and the  
 “ Apocalypse itself: and some other books of the New Testament, which were  
 “ not at that time written, were nevertheless in the book: and for the letter, it  
 “ was in these words:



## NEW ATLANTIS.

“ I Bartholomew, a servant of the Higbest, and Apostle of Jesus Christ, was  
 “ warned by an angel that appeared to me in a vision of glory, that I should commit  
 “ this ark to the floods of the sea. Therefore I do testify and declare, unto that  
 “ people where God shall ordain this ark to come to land, that in the same day is come  
 “ unto them salvation, and peace, and good-will, from the Father, and from the  
 “ Lord Jesus.

“ There was also in both these writings, as well the book, as the letter,  
 “ wrought a great miracle, conform to that of the Apostles in the original gift of  
 “ tongues. For there being at that time in this land, Hebrews, Persians, and  
 “ Indians, besides the natives, every one read upon the book and letter, as if they  
 “ had been written in his own language. And thus was this land saved from  
 “ infidelity (as the remain of the old world was from water) by an ark, through  
 “ the apostolical and miraculous evangelism of St. Bartholomew.” And here he  
 “ paused, and a messenger came, and called him from us. So this was all that  
 “ passed in that conference.

The next day the same governour came again to us immediately after dinner,  
 and excused himself, saying; “ that the day before he was called from us some-  
 “ what abruptly, but now he would make us amends, and spend time with us, if  
 “ we held his company and conference agreeable:” we answered; “ that we  
 “ held it so agreeable and pleasing to us, as we forgot both dangers past, and fears  
 “ to come, for the time we heard him speak; and that we thought an hour spent  
 “ with him, was worth years of our former life.” He bowed himself a little to  
 us, and after we were set again, he said; “ Well, the questions are on your  
 “ part.” One of our number said, after a little pause; “ that there was a matter  
 “ we were no less desirous to know, than fearful to ask, lest we might presume  
 “ too far. But encouraged by his rare humanity towards us (that could scarce  
 “ think ourselves strangers, being his vowed and professed servants) we would  
 “ take the hardiness to propound it: humbly beseeching him, if he thought it not  
 “ fit to be answered, that he would pardon it, though he rejected it.” We said;  
 “ we well observed those his words, which he formerly spake, that this happy  
 “ island where we now stood, was known to few, and yet knew most of the na-  
 “ tions of the world; which we found to be true, considering they had the lan-  
 “ guages of Europe, and knew much of our state and business; and yet we in  
 “ Europe (notwithstanding all the remote discoveries and navigations of this last  
 “ age) never heard any of the least inking or glimpse of this island. This we  
 “ found wonderful strange; for that all nations have interknowledge one of  
 “ another, either by voyage into foreign parts, or by strangers that come to them:  
 “ and though the traveller into a foreign country doth commonly know more  
 “ by the eye, than he that stayeth at home can by relation of the traveller; yet  
 “ both ways suffice to make a mutual knowledge, in some degree, on both parts.  
 “ But for this island, we never heard tell of any ship of theirs, that had been seen  
 “ to arrive upon any shore of Europe; no, nor of either the East or West Indies,  
 “ nor yet of any ship of any other part of the world, that had made return from  
 “ them. And yet the marvel rested not in this. For the situation of it (as his  
 “ lordship said) in the secret conclave of such a vast sea might cause it. But then,  
 “ that they should have knowledge of the languages, books, affairs, of those  
 “ that lie such a distance from them, it was a thing we could not tell what to  
 “ make of; for that it seemed to us a condition and propriety of divine powers and  
 “ beings, to be hidden and unseen to others, and yet to have others open, and as  
 “ in a light to them.” At this speech the governour gave a gracious smile, and  
 “ said; “ that we did well to ask pardon for this question we now asked; for that  
 “ it imported, as if we thought this land a land of magicians, that sent forth spirits  
 “ of the air into all parts, to bring them news and intelligence of other countries.”  
 “ It was answered by us all, in all possible humbleness, but yet with a countenance  
 “ taking knowledge that we knew that he spake it but merrily, “ That we were apt  
 “ enough to think there was something supernatural in this island, but yet rather  
 “ as angelical than magical. But to let his lordship know truly, what it was that  
 “ made us tender and doubtful to ask this question, it was not any such conceit,  
 “ but



“ but because we remembered, he had given a touch in his former speech, that this  
 “ land had laws of secrecy touching strangers.” To this he said; “ You re-  
 “ member it aright; and therefore in that I shall say to you, I must reserve some  
 “ particulars, which it is not lawful for me to reveal; but there will be enough  
 “ left to give you satisfaction.

“ You shall understand (that which perhaps you will scarce think credible)  
 “ that about three thousand years ago, or somewhat more, the navigation of the  
 “ world (especially for remote voyages) was greater than at this day. Do not  
 “ think with yourselves, that I know not how much it is increased with you  
 “ within these sixscore years: I know it well; and yet I say greater then than  
 “ now: whether it was, that the example of the ark, that saved the remnant of  
 “ men from the universal deluge, gave men confidence to adventure upon the  
 “ waters, or what it was, but such is the truth. The Phenicians, and especially  
 “ the Tyrians, had great fleets. So had the Carthaginians their colony, which  
 “ is yet farther west. Toward the east, the shipping of Egypt, and of Palestine,  
 “ was likewise great. China also, and the great Atlantis (that you call America)  
 “ which have now but junks and canoes, abounded then in tall ships. This island  
 “ (as appeareth by faithful registers of those times) had then fifteen hundred  
 “ strong ships, of great content. Of all this, there is with you sparing memory,  
 “ or none; but we have large knowledge thereof.

“ At that time, this land was known and frequented by the ships and vessels  
 “ of all the nations beforenamed. And (as it cometh to pass) they had many  
 “ times men of other countries, that were no sailors, that came with them; as  
 “ Persians, Chaldeans, Arabians; so as almost all nations of might and fame re-  
 “ sorted hither; of whom we have some stirps and little tribes with us at this day.  
 “ And for our own ships, they went sundry voyages, as well to your streights,  
 “ which you call the pillars of Hercules, as to other parts in the Atlantick and  
 “ Mediterranean seas; as to Peguin (which is the same with Cambaline) and  
 “ Quinzy, upon the oriental seas, as far as to the borders of the east Tartary.

“ At the same time, and an age after, or more, the inhabitants of the great  
 “ Atlantis did flourish. For though the narration and description which is made  
 “ by a great man with you, that the descendents of Neptune planted there; and  
 “ of the magnificent temple, palace, city, and hill; and the manifold streams of  
 “ goodly navigable rivers, which (as so many chains) environed the same site and  
 “ temple; and the several degrees of ascent, whereby men did climb up to the  
 “ same, as if it had been a *scala celi*; be all poetical and fabulous: yet so much  
 “ is true, that the said country of Atlantis, as well that of Peru then called  
 “ Coya, as that of Mexico then named Tyrabel, were mighty and proud king-  
 “ doms, in arms, shipping, and riches: so mighty, as at one time (or at least  
 “ within the space of ten years) they both made two great expeditions; they of  
 “ Tyrabel, through the Atlantick to the Mediterranean Sea; and they of  
 “ Coya, through the South Sea upon this our island: and for the former of these,  
 “ which was into Europe, the same author amongst you (as it seemeth) had some  
 “ relation from the Egyptian priest, whom he citeth. For assuredly, such a  
 “ thing there was. But whether it were the ancient Athenians that had the glory  
 “ of the repulse and resistance of those forces, I can say nothing: But certain  
 “ it is, there never came back either ship, or man, from that voyage. Neither  
 “ had the other voyage of those of Coya upon us, had better fortune, if they  
 “ had not met with enemies of greater clemency. For the king of this island  
 “ (by name Altabin) a wise man, and a great warrior; knowing well both his  
 “ own strength, and that of his enemies; handled the matter so, as he cut off  
 “ their land forces from their ships, and entailed both their navy, and their camp,  
 “ with a greater power than theirs, both by sea and land; and compelled them  
 “ to render themselves without striking stroke: and after they were at his mercy,  
 “ contenting himself only with their oath, that they should no more bear arms  
 “ against him, dismissed them all in safety. But the divine revenge overtook not  
 “ long after those proud enterprizes. For within less than the space of one hun-  
 “ dred years, the great Atlantis was utterly lost and destroyed: not by a great  
 “ earthquake, as your man saith (for that whole tract is little subject to earth-  
 “ quakes)



“ quakes) but by a particular deluge, or inundation : those countries having, at  
 “ this day, far greater rivers, and far higher mountains, to pour down waters,  
 “ than any part of the old world. But it is true, that the same inundation was  
 “ not deep ; not past forty foot, in most places, from the ground : so that,  
 “ although it destroyed man and beast generally, yet some few wild inhabi-  
 “ tants of the wood escaped. Birds also were saved by flying to the high  
 “ trees and woods. For as for men, although they had buildings in many  
 “ places, higher than the depth of the water ; yet that inundation, though it  
 “ were shallow, had a long continuance ; whereby they of the vale, that were  
 “ not drowned, perished for want of food, and other things necessary. So as  
 “ marvel you not at the thin population of America, nor at the rudeness and  
 “ ignorance of the people ; for you must account your inhabitants of America  
 “ as a young people ; younger a thousand years, at the least, than the rest of  
 “ the world : for that there was so much time between the universal flood,  
 “ and their particular inundation. For the poor remnant of human seed, which  
 “ remained in their mountains, peopled the country again slowly, by little  
 “ and little ; and being simple and savage people (not like Noah and his  
 “ sons, which was the chief family of the earth) they were not able to leave  
 “ letters, arts, and civility to their posterity ; and having likewise in their moun-  
 “ tainous habitations been used (in respect of the extreme cold of those regions)  
 “ to cloath themselves with the skins of tygers, bears, and great hairy goats,  
 “ that they have in those parts ; when after they came down into the valley,  
 “ and found the intolerable heats which are there, and knew no means of lighter  
 “ apparel, they were forced to begin the custom of going naked, which con-  
 “ tinueth at this day. Only they take great pride and delight in the feathers  
 “ of birds ; and this also they took from those their ancestors of the moun-  
 “ tains, who were invited unto it, by the infinite flights of birds, that came  
 “ up to the high grounds, while the waters stood below. So you see, by this  
 “ main accident of time, we lost our traffick with the Americans, with whom,  
 “ of all others, in regard they lay nearest to us, we had most commerce. As  
 “ for the other parts of the world, it is most manifest, that in the ages fol-  
 “ lowing (whether it were in respect of wars, or by a natural revolution of  
 “ time) navigation did every where greatly decay ; and especially far voyages  
 “ (the rather by the use of galleies, and such vessels as could hardly brook the  
 “ ocean) were altogether left and omitted. So then, that part of intercourse  
 “ which could be from other nations to sail to us, you see how it hath long  
 “ since ceased ; except it were by some rare accident, as this of yours. But  
 “ now of the cessation of that other part of intercourse, which might be by  
 “ our sailing to other nations, I must yield you some other cause. For I can-  
 “ not say (if I shall say truly) but our shipping, for number, strength, mari-  
 “ ners, pilots, and all things that appertain to navigation, is as great as ever :  
 “ and therefore why we should sit at home, I shall now give you an account  
 “ by itself ; and it will draw nearer, to give you satisfaction, to your principal  
 “ question.

“ There reigned in this island, about nineteen hundred years ago, a king,  
 “ whose memory of all others we most adore ; not superstitiously, but as a di-  
 “ vine instrument, though a mortal man ; his name was Solomona : and we  
 “ esteem him as the law-giver of our nation. This king had a large heart,  
 “ inscrutable for good, and was wholly bent to make his kingdom and people  
 “ happy. He therefore taking into consideration, how sufficient and substantive  
 “ this land was, to maintain itself without any aid (at all) of the foreigner, be-  
 “ ing five thousand six hundred miles in circuit, and of rare fertility of soil in  
 “ the greatest part thereof ; and finding also the shipping of this country might  
 “ be plentifully set on work, both by fishing, and by transportations from port  
 “ to port, and likewise by sailing unto some small islands that are not far from  
 “ us, and are under the crown and laws of this state ; and recalling into his  
 “ memory, the happy and flourishing estate wherein this land then was ; so as  
 “ it might be a thousand ways altered to the worse, but scarce any one way  
 “ to the better ; thought nothing wanted to his noble and heroical intentions,

“ but



“but only (as far as human foresight might reach) to give perpetuity to that,  
 “which was in his time so happily established. Therefore amongst his other  
 “fundamental laws of this kingdom, he did ordain the interdicts and prohibi-  
 “tions, which we have touching entrance of strangers; which at that time  
 “(though it was after the calamity of America) was frequent; doubting no-  
 “velties, and commixture of manners. It is true, the like law, against the ad-  
 “mission of strangers without licence, is an ancient law in the kingdom of  
 “China, and yet continued in use: but there it is a poor thing; and hath  
 “made them a curious, ignorant, fearful, foolish nation. But our law-giver  
 “made his law of another temper. For first, he hath preserved all points of  
 “humanity, in taking order, and making provision for the relief of strangers  
 “distressed, whereof you have tasted.” At which speech (as reason was) we  
 “all rose up, and bowed ourselves. He went on. “That king also still de-  
 “siring to join humanity and policy together; and thinking it against humanity,  
 “to detain strangers here against their wills; and against policy that they should  
 “return, and discover their knowledge of this estate, he took this course: he  
 “did ordain, that of the strangers that should be permitted to land, as many  
 “(at all times) might depart as would; but as many as would stay, should  
 “have very good conditions, and means to live, from the state. Wherein he  
 “saw so far, that now in so many ages since the prohibition, we have memo-  
 “ry, not of one ship that ever returned, and but of thirteen persons only, at  
 “several times, that chose to return in our bottoms. What those few that  
 “returned, may have reported abroad, I know not: but you must think,  
 “whatsoever they have said, could be taken where they came but for a dream.  
 “Now for our travelling from hence into parts abroad, our law-giver thought  
 “fit altogether to restrain it. So is it not in China. For the Chinese sail  
 “where they will, or can; which sheweth, that their law of keeping out stran-  
 “gers, is a law of pusillanimity and fear. But this restraint of ours hath one  
 “only exception, which is admirable; preserving the good which cometh by  
 “communicating with strangers, and avoiding the hurt; and I will now open  
 “it to you. And here I shall seem a little to digress, but you will by and by  
 “find it pertinent. Ye shall understand (my dear friends) that amongst the  
 “excellent acts of that king, one above all hath the preeminence. It was  
 “the erection, and institution of an order, or society, which we call Solomon’s  
 “house; the noblest foundation (as we think) that ever was upon the earth;  
 “and the lanthorn of this kingdom. It is dedicated to the study of the works  
 “and creatures of God. Some think it beareth the founder’s name a little  
 “corrupted, as if it should be Solomon’s house. But the records write it, as  
 “it is spoken. So as I take it to be denominate of the king of the Hebrews,  
 “which is famous with you, and no stranger to us; for we have some parts  
 “of his works, which with you are lost; namely, that Natural History which  
 “he wrote of all plants, *from the cedar of Libanus, to the moss that groweth out  
 “of the wall*; and of all things that have life and motion. This maketh me  
 “think, that our king finding himself to symbolize in many things with that  
 “king of the Hebrews (which lived many years before him) honoured him  
 “with the title of this foundation. And I am the rather induced to be of this  
 “opinion, for that I find in ancient records, this order or society is sometimes  
 “called Solomon’s house, and sometimes the college of the six days works;  
 “whereby I am satisfied, that our excellent king had learned from the He-  
 “brews, that God had created the world, and all that therein is, within six  
 “days; and therefore he instituting that house for the finding out of the true  
 “nature of all things (whereby God might have the more glory in the work-  
 “manship of them, and men the more fruit in the use of them) did give it  
 “also that second name. But now to come to our present purpose. When  
 “the king had forbidden, to all his people, navigation into any part, that was  
 “not under his crown, he made nevertheless this ordinance; that every twelve  
 “years there should be set forth, out of this kingdom, two ships appointed to  
 “several voyages; that in either of these ships there should be a mission of three  
 “of the fellows, or brethren of Solomon’s house; whose errand was only to  
 “give



“ give us knowledge of the affairs and state of those countries to which they  
 “ were designed; and especially of the sciences, arts, manufactures, and inventions of all the world; and withal to bring unto us, books, instruments, and patterns, in every kind: that the ships, after they had landed the brethren, should return; and that the brethren should stay abroad till the new mission. These ships are not otherwise fraught, than with store of victuals, and good quantity of treasure to remain with the brethren, for the buying of such things, and rewarding of such persons, as they should think fit. Now for me to tell you how the vulgar sort of mariners are contained from being discovered at land; and how they that must be put on shore for any time, colour themselves under the names of other nations; and to what places these voyages have been designed; and what places of rendezvous are appointed for the new missions; and the like circumstances of the practise; I may not do it: neither is it much to your desire. But thus you see we maintain a trade, not for gold, silver, or jewels; nor for silks; nor for spices; nor any other commodity of matter; but only for God’s first creature, which was light: “ to have light (I say) of the growth of all parts of the world.” And when he had said this, he was silent; and so were we all. For indeed we were all astonished to hear so strange things so probably told. And he perceiving that we were willing to say somewhat, but had it not ready, in great courtesy took us off, and descended to ask us questions of our voyage and fortunes, and in the end concluded, that we might do well to think with ourselves, what time of stay we would demand of the state; and bade us not to scant ourselves; for he would procure such time as we desired. Whereupon we all rose up, and presented ourselves to kiss the skirt of his tippet, but he would not suffer us; and so took his leave. But when it came once amongst our people, that the state used to offer conditions to strangers that would stay, we had work enough to get any of our men to look to our ship; and to keep them from going presently to the governour to crave conditions. But with much ado we restrained them, till we might agree what course to take.

We took ourselves now for free men, seeing there was no danger of our utter perdition; and lived most joyfully, going abroad, and seeing what was to be seen in the city and places adjacent, within our tedder; and obtaining acquaintance with many of the city, not of the meanest quality; at whose hands we found such humanity, and such a freedom and desire to take strangers as it were into their bosom, as was enough to make us forget all that was dear to us in our own countries; and continually we met with many things, right worthy of observation and relation; as indeed, if there be a mirror in the world worthy to hold mens eyes, it is that country. One day there were two of our company bidden to a feast of the family, as they call it. A most natural, pious, and reverend custom it is, shewing that nation to be compounded of all goodnels. This is the manner of it. It is granted to any man, that shall live to see thirty persons descended of his body alive together, and all above three years old, to make this feast, which is done at the cost of the state. The father of the family, whom they call the Tirsan, two days before the feast, taketh to him three of such friends as he liketh to chuse; and is assisted also by the governour of the city, or place, where the feast is celebrated; and all the persons of the family of both sexes are summoned to attend him. These two days the Tirsan sitteth in consultation, concerning the good estate of the family. There, if there be any discord or suits between any of the family, they are compounded and appeased. There, if any of the family be distressed or decayed, order is taken for their relief, and competent means to live. There, if any be subject to vice, or take ill courses, they are reprovèd and censured. So likewise direction is given touching marriages, and the courses of life which any of them should take, with divers other the like orders and advices. The governour assisteth, to the end to put in execution, by his publick authority, the decrees and orders of the Tirsan, if they should be disobeyed; though that seldom needeth; such reverence and obedience they give to the order of nature. The Tirsan doth also then ever chuse one man from amongst his sons, to live in the house



house with him : who is called ever after, the Son of the vine. The reason will hereafter appear. On the feast-day, the father, or Tirian, cometh forth after divine service into a large room where the feast is celebrated ; which room hath an half pace at the upper end. Against the wall, in the middle of the half pace, is a chair placed for him, with a table and carpet before it. Over the chair is a state made round or oval, and it is of ivy ; an ivy somewhat whiter than ours, like the leaf of a silver asp, but more shining ; for it is green all winter. And the state is curiously wrought with silver and silk of divers colours, broiding or binding in the ivy ; and is ever of the work of some of the daughters of the family ; and veiled over at the top with a fine net of silk and silver. But the substance of it is true ivy ; whereof, after it is taken down, the friends of the family are desirous to have some leaf or sprig to keep. The Tirian cometh forth with all his generation or lineage, the males before him, and the females following him ; and if there be a mother, from whose body the whole lineage is descended, there is a traverse placed in a loft above on the right hand of the chair, with a privy door, and a carved window of glaz, leaded with gold and blue ; where she sitteth, but is not seen. When the Tirian is come forth, he sitteth down in the chair ; and all the lineage place themselves against the wall, both at his back, and upon the return of the half pace, in order of their years, without difference of sex, and stand upon their feet. When he is set, the room being always full of company, but well kept, and without disorder ; after some pause there cometh in from the lower end of the room a taratan (which is as much as an herald) and on either side of him two young lads ; whereof one carrieth a scroll of their shining yellow parchment ; and the other a cluster of grapes of gold, with a long foot or stalk. The herald and children are clothed with mantles of sea-water green sattin ; but the herald's mantle is streained with gold, and hath a train. Then the herald with three curtesies, or rather inclinations, cometh up as far as the half pace ; and there first taketh into his hand the scroll. This scroll is the king's charter, containing gift of revenue, and many privileges, exemptions, and points of honour, granted to the father of the family ; and it is ever styled and directed, “ To such an one, our well-beloved friend and creditor : ” which is a title proper only to this case. For they say, the king is debtor to no man, but for propagation of his subjects. The seal set to the king's charter, is the king's image, imbossed or moulded in gold ; and though such charters be expedited of course, and as of right, yet they are varied by discretion, according to the number and dignity of the family. This charter the herald readeth aloud ; and while it is read, the father or Tirian standeth up, supported by two of his sons, such as he chuseth. Then the herald mountheth the half pace, and delivereth the charter into his hand : and with that there is an acclamation by all that are present, in their language, which is thus much ; “ Happy are the people of Benusalem. ” Then the herald taketh into his hand from the other child, the cluster of grapes, which is of gold ; both the stalk and the grapes. But the grapes are daintily enamelled ; and if the males of the family be the greater number, the grapes are enamelled purple, with a little sun set on the top ; if the females, then they are enamelled into a greenish yellow, with a crescent on the top. The grapes are in number as many as there are descendents of the family. This golden cluster the herald delivereth also to the Tirian ; who presently delivereth it over to that son, that he had formerly chosen to be in house with him : who beareth it before his father as an ensign of honour, when he goeth in publick ever after ; and is thereupon called the Son of the vine. After this ceremony ended, the father or Tirian retireth ; and after some time cometh forth again to dinner, where he sitteth alone under the state as before ; and none of his descendents sit with him, of what degree or dignity soever, except he hap to be of Solomon's house. He is served only by his own children, such as are male ; who perform unto him all service of the table upon the knee ; and the women only stand about him, leaning against the wall. The room below the half pace, hath tables on the sides for the guests that are bidden ; who are served with great and comely order ; and towards the end of dinner (which



## NEW ATLAN TIS.

in the greatest feasts with them, lasteth never above an hour and a half: there is an hymn sung, varied according to the invention of him that composed it (for they have excellent poesy) but the subject of it is (always) the praises of Adam, and Noah, and Abraham; whereof the former two peopled the world, and the last was the father of the faithful: concluding ever with a thanksgiving for the nativity of our Saviour, in whose birth the births of all are only blessed. Dinner being done, the Tirsan retireth again; and having withdrawn himself alone into a place, where he maketh some private prayers, he cometh forth the third time, to give the blessing; with all his descendants, who stand about him as at the first. Then he calleth them forth by one and by one, by name, as he pleaseth, though seldom the order of age be inverted. The person that is called (the table being before removed) kneeleth down before the chair, and the father layeth his hand upon his head, or her head, and giveth the blessing in these words: "Son of Benusalem (or daughter of Benusalem) thy father saith it; the man by whom thou hast breath and life speaketh the word; The blessing of the everlasting Father, the Prince of peace, and the Holy Dove be upon thee, and make the days of thy pilgrimage good and many." This he saith to every of them; and that done, if there be any of his sons of eminent merit and virtue (so they be not above two) he calleth for them again; and saith, laying his arm over their shoulders, they standing; "Sons, it is well ye are born, give God the praise, and persevere to the end." And withal delivereth to either of them a jewel, made in the figure of an ear of wheat, which they ever after wear in the front of their turban, or hat. This done, they fall to musick and dances, and other recreations, after their manner, for the rest of the day. This is the full order of that feast.

By that time fix or seven days were spent, I was fallen into strait acquaintance with a merchant of that city, whose name was Joabin. He was a Jew, and circumcised: for they have some few stirps of Jews yet remaining among them, whom they leave to their own religion: which they may the better do, because they are of a far differing disposition from the Jews in other parts. For whereas they hate the name of Christ, and have a secret inbred rancour against the people amongst whom they live; these (contrariwise) give unto our Saviour many high attributes, and love the nation of Benusalem extremely. Surely this man of whom I speak, would ever acknowledge that Christ was born of a virgin; and that he was more than a man; and he would tell how God made him ruler of the seraphims which guard his throne; and they call him also the milken way, and the Elijah of the Messias; and many other high names; which though they be inferior to his divine Majesty, yet they are far from the language of other Jews. And for the country of Benusalem, this man would make no end of commending it: being desirous by tradition among the Jews there, to have it believed, that the people thereof were of the generations of Abraham, by another son, whom they call Nachoran; and that Moses, by a secret cabala, ordained the laws of Benusalem which they now use; and that when the Messias should come, and sit in his throne at Hierusalem, the king of Benusalem should sit at his feet, whereas other kings should keep a great distance. But yet setting aside these Jewish dreams, the man was a wise man, and learned, and of great policy, and excellently seen in the laws and customs of that nation. Amongst other discourses, one day I told him I was much affected with the relation I had from some of the company, of their custom in holding the feast of the family; for that (methought) I had never heard of a solemnity, wherein nature did so much preside. And because propagation of families proceedeth from the nuptial copulation, I desired to know of him, what laws and customs they had concerning marriage; and whether they kept marriage well; and whether they were tied to one wife? For that where population is so much affected, and such as with them it seemed to be, there is commonly permission of plurality of wives. To this he said; "You have reason for to commend that excellent institution of the feast of the family; and indeed we have experience, that those families that are partakers of the blessing of that feast, do flourish and prosper ever after in an extraordinary manner. But hear me now, and I will tell you what I know. You shall understand, that

"there



there is not under the heavens so chaste a nation as this of Benſalem; nor ſo free from all pollution or foulneſs. It is the virgin of the world. I remember I have read in one of your European books, of an holy hermit among you, that deſired to ſee the ſpirit of fornication; and there appeared to him a little ſoul ugly *Aethiophe*: but if he had deſired to ſee the ſpirit of chaſtity of Benſalem, it would have appeared to him in the likenels of a fair beautiful cherubin. For there is nothing amongst mortal men more fair and admirable, than the chaſte minds of this people. Know therefore that with them there are no ſtews, no diſſolute houſes, no curteſans; nor any thing of that kind. Nay, they wonder (with deteſtation) at you in Europe, which permit ſuch things. They ſay, we have put marriage out of office: for marriage is ordained a remedy for unlawful concupiſcence; and natural concupiſcence ſeemeth as a ſpur to marriage. But when men have at hand a remedy more agreeable to their corrupt will, marriage is almoſt expulſed. And therefore there are with you ſeen infinite men that marry not, but chuſe rather a libertine and impure ſingle life, than to be yoked in marriage; and many that do marry, marry late, when the prime and ſtrength of their years is paſt. And when they do marry, what is marriage to them but a very bargain; wherein is ſought alliance, or portion, or reputation, with ſome deſire (almoſt indifferent) of iſſue; and not the faithful nuptial union of man and wife, that was firſt inſtituted. Neither is it poſſible, that thoſe that have caſt away ſo baſely ſo much of their ſtrength, ſhould greatly eſteem children (being of the ſame matter) as chaſte men do. So likewiſe during marriage is the caſe much amended, as it ought to be if thoſe things were tolerated only for neceſſity? No; but they remain ſtill as a very affront to marriage. The haunting of thoſe diſſolute places, or reſort to curteſans, are no more puniſhed in married men than in batchelors. And the depraved cuſtom of change, and the delight in meretricious embracements (where ſin is turned into art) maketh marriage a dull thing, and a kind of impoſition or tax. They hear you defend theſe things, as done to avoid greater evils; as advountries, deſouring of virgins, unnatural luſt, and the like. But they ſay, this is a prepoſterous wiſdom; and they call it Lot's offer, who to ſave his gueſts from abuſing, offered his daughters: nay, they ſay farther, that there is little gained in this; for that the ſame vices and appetites do ſtill remain and abound; unlawful luſt being like a furnace, that if you ſtop the flames altogether it will quench; but if you give it any vent it will rage. As for maſculine love, they have no touch of it; and yet there are not ſo faithful and inviolate friendships in the world again as are there; and to ſpeak generally (as I ſaid before) I have not read of any ſuch chaſtity in any people as theirs. And their uſual ſaying is, That whoſoever is unchaſte cannot reverence himſelf; and they ſay, That the reverence of a man's ſelf, is, next religion, the chiefeſt bridle of all vices. And when he had ſaid this, the good Jew paused a little; whereupon I far more willing to hear him ſpeak on, than to ſpeak myſelf; yet thinking it decent, that upon his pauſe of ſpeech I ſhould not be altogether ſilent, ſaid only this; "that I would ſay to him, as the widow of Sarepta ſaid to Elias; that he was come to bring to memory our ſins; and that I confeſs the righteouſneſs of Benſalem was greater than the righteouſneſs of Europe." At which ſpeech he bowed his head, and went on in this manner: "They have alſo many wife and excellent laws touching marriage. They allow no polygamy. They have ordained that none do inter-marry, or contract, until a month be paſt from their firſt interview. Marriage without conſent of parents they do not make void, but they muſt it in the inheritors: for the children of ſuch marriages are not admitted to inherit above a third part of their parents inheritance. I have read in a book of one of your men, of a feigned commonwealth, where the married couple are permitted before they contract, to ſee one another naked. This they diſlike; for they think it a ſcorn to give a refusal after ſo familiar knowledge: but becauſe of many hidden defects in men and womens bodies, they have a more civil way: for they have near every town a couple of pools (which they call Adam and Eve's pools) where it is permitted to one of the friends of the man, and another of the friends of the woman, to ſee them ſeverally bathe naked."



And as we were thus in conference, there came one that seemed to be a messenger, in a rich huke, that spake with the Jew: whereupon he turned to me, and said; "You will pardon me, for I am commanded away in haste." The next morning he came to me again joyful, as it seemed, and said, "There is word come to the governour of the city, that one of the fathers of Solomon's house will be here this day seven-night: we have seen none of them this dozen years. His coming is in state; but the cause of his coming is secret. I will provide you, and your fellows, of a good standing to see his entry." I thanked him, and told him, I was most glad of the news. The day being come, he made his entry. He was a man of middle stature and age, comely of person, and had an aspect as if he pited men. He was clothed in a robe of fine black cloath, with wide sleeves and a cape. His under garment was of excellent white linen down to the foot, girt with a girdle of the same; and a sinder or tippet of the same about his neck. He had gloves that were curious, and set with stone; and shoes of peach-coloured velvet. His neck was bare to the shoulders. His hat was like a helmet, or Spanish Montera; and his locks curled below it decently: they were of colour brown. His beard was cut round, and of the same colour with his hair, somewhat lighter. He was carried in a rich chariot without wheels, litter-wise, with two horses at either end, richly trapped in blue velvet embroidered; and two footmen on each side in the like attire. The chariot was all of cedar, gilt, and adorned with crystal; save that the fore-end had pannels of sapphires, set in borders of gold, and the hinder-end the like of emeralds of the Peru colour. There was also a sun of gold, radiant upon the top, in the midst; and on the top before a small cherub of gold, with wings displayed. The chariot was covered with cloth of gold tissued upon blue. He had before him fifty attendants, young men all, in white fatten loose coats to the mid-leg, and stockings of white silk; and shoes of blue velvet; and hats of blue velvet; with fine plumes of diverse colours, set round like hat-bands. Next before the chariot went two men bare-headed, in linen garments down to the foot, girt, and shoes of blue velvet, who carried the one a crozier, the other a pastoral staff, like a sheep-hook; neither of them of metal, but the crozier of balm wood, the pastoral staff of cedar. Horsemen he had none, neither before nor behind his chariot: as it seemeth, to avoid all tumult and trouble. Behind his chariot went all the officers and principals of the companies of the city. He sat alone, upon cushions of a kind of excellent plush, blue; and under his foot curious carpets of silk of divers colours, like the Persian, but far finer. He held up his bare hand as he went, as blessing the people, but in silence. The street was wonderfully well kept; so that there was never any army had their men stand in better battle-array, than the people stood. The windows likewise were not crowded, but every one stood in them as if they had been placed. When the shew was past, the Jew said to me; "I shall not be able to attend you as I would, in regard of some charge the city hath laid upon me, for the entertaining of this great person." Three days after the Jew came to me again, and said; "Ye are happy men; for the father of Solomon's house taketh knowledge of your being here, and commanded me to tell you, that he will admit all your company to his presence, and have private conference with one of you that ye shall chuse: and for this hath appointed the next day after to-morrow. And because he meaneth to give you his blessing, he hath appointed it in the forenoon." We came at our day and hour, and I was chosen by my fellows for the private access. We found him in a fair chamber richly hanged, and carpeted under foot, without any degrees to the state; he was set upon a low throne richly adorned, and a rich cloth of state over his head, of blue satin embroidered. He was alone, save that he had two pages of honour, on either hand one, finely attired in white. His under garments were the like that we saw him wear in the chariot; but instead of his gown, he had on him a mantle with a cape, of the same fine black, fastened about him. When we came in, as we were taught, we bowed low at our first entrance; and when we were come near his chair, he stood up, holding forth his hand ungloved, and in posture of blessing; and we every one of us stooped down, and kissed the hem of his tippet. That done, the rest departed, and I remained. Then he

warned



warned the pages forth of the room, and caused me to sit down beside him, and spake to me thus in the Spanish tongue.

“GOD blefs thee, my son; I will give thee the greatest jewel I have. For  
 “I will impart unto thee, for the love of God and men, a relation of the true  
 “state of Solomon’s house. Son, to make you know the true state of Solomon’s  
 “house, I will keep this order. First, I will set forth unto you the end of our  
 “foundation. Secondly, the preparations and instruments we have for our works.  
 “Thirdly, the several employments and functions whereto our fellows are assigned.  
 “And fourthly, the ordinances and rites which we observe.

“The end of our foundation is the knowledge of causes, and secret motions  
 “of things; and the enlarging of the bounds of human empire, to the effecting  
 “of all things possible.

“The preparations and instruments are these. We have large and deep caves  
 “of several depths: the deepest are sunk six hundred fathom; and some of them  
 “are digged and made under great hills and mountains: so that if you reckon  
 “together the depth of the hill, and the depth of the cave, they are (some of  
 “them) above three miles deep. For we find that the depth of an hill, and the  
 “depth of a cave from the flat, is the same thing; both remote alike from the  
 “sun and heavens beams, and from the open air. These caves we call the lower  
 “region. And we use them for all coagulations, indurations, refrigerations, and  
 “conservations of bodies. We use them likewise for the imitation of natural  
 “mines: and the producing also of new artificial metals, by compositions and  
 “materials which we use and lay there for many years. We use them also  
 “sometimes (which may seem strange) for curing of some diseases, and for pro-  
 “longation of life, in some hermits that chuse to live there, well accommodated  
 “of all things necessary, and indeed live very long; by whom also we learn  
 “many things.

“We have burials in several earths, where we put divers cements, as the Chi-  
 “neses do their porcellane. But we have them in greater variety, and some of  
 “them more fine. We have also great variety of composts, and soils, for the  
 “making of the earth fruitful.

“We have high towers; the highest about half a mile in height; and some of  
 “them likewise set upon high mountains; so that the vantage of the hill with  
 “the tower, is in the highest of them three miles at least. And these places we  
 “call the upper region; accounting the air between the high places and the low,  
 “as a middle region. We use these towers, according to their several heights  
 “and situations, for insolation, refrigeration, conservation, and for the view of  
 “divers meteors; as winds, rain, snow, hail, and some of the fiery meteors also.  
 “And upon them, in some places, are dwellings of hermits, whom we visit  
 “sometimes, and instruct what to observe.

“We have great lakes both salt and fresh, whereof we have use for the  
 “fish and fowl. We use them also for burials of some natural bodies: for we  
 “find a difference in things buried in earth, or in air below the earth; and  
 “things buried in water. We have also pools, of which some do strain fresh  
 “water out of salt; and others by art do turn fresh water into salt. We have  
 “also some rocks in the midst of the sea; and some bays upon the shore for  
 “some works, wherein is required the air and vapour of the sea. We have  
 “likewise violent streams and cataracts, which serve us for many motions: and  
 “likewise engines for multiplying and enforcing of winds, to set also on going  
 “divers motions.

“We have also a number of artificial wells and fountains, made in imitation of  
 “the natural sources and baths; as tinged upon vitriol, sulphur, steel, brats,  
 “lead, nitre, and other minerals. And again, we have little wells for infusions  
 “of many things, where the waters take the virtue quicker and better, than in  
 “vessels or balsms. And amongst them we have a water, which we call water of  
 “paradise, being, by that we do to it, made very sovereign for health, and pro-  
 “longation of life.



" We have also great and spacious houses, where we imitate and demonstrate meteors; as snow, hail, rain, some artificial rains of bodies, and not of water, thunders, lightnings; also generations of bodies in air; as frogs, flies, and divers others.

" We have also certain chambers, which we call chambers of health, where we qualify the air as we think good and proper for the cure of divers diseases, and preservation of health.

" We have also fair and large baths, of several mixtures, for the cure of diseases, and the restoring of man's body from arefaction: and others, for the confirming of it in strength of sinews, vital parts, and the very juice and substance of the body.

" We have also large and various orchards and gardens, wherein we do not so much respect beauty, as variety of ground and soil, proper for divers trees and herbs: and some very spacious, where trees and berries are set, whereof we make divers kinds of drinks, besides the vineyards. In these we practise likewise all conclusions of grafting and inoculating, as well of wild trees as fruit trees, which produceth many effects. And we make (by art) in the same orchards and gardens, trees and flowers, to come earlier or later than their seasons; and to come up and bear more speedily, than by their natural course they do. We make them also by art greater much than their nature; and their fruit greater, and sweeter, and of differing taste, smell, colour, and figure, from their nature. And many of them we so order, as they become of medicinal use.

" We have also means to make divers plants rise by mixtures of earths without seeds; and likewise to make divers new plants, differing from the vulgar; and to make one tree or plant turn into another.

" We have also parks and enclosures of all sorts of beasts and birds, which we use not only for view or rareness, but likewise for dissections and trials; that thereby we may take light, what may be wrought upon the body of man. Wherein we find many strange effects; as continuing life in them, though divers parts, which you account vital, be perished, and taken forth; resuscitating of some that seem dead in appearance; and the like. We try also all poisons, and other medicines upon them, as well of chirurgery as physick. By art likewise, we make them greater or taller, than their kind is; and contrariwise dwarf them, and stay their growth: we make them more fruitful and bearing than their kind is; and contrariwise barren, and not generative. Also we make them differ in colour, shape, activity, many ways. We find means to make commixtures and copulations of divers kinds, which have produced many new kinds, and them not barren, as the general opinion is. We make a number of kinds of serpents, worms, flies, fishes, of putrefaction; whereof some are advanced (in effect) to be perfect creatures, like beasts, or birds; and have sexes, and do propagate. Neither do we this by chance, but we know before-hand, of what matter and commixture, what kind of those creatures will arise.

" We have also particular pools, where we make trials upon fishes, as we have said before of beasts and birds.

" We have also places for breed and generation of those kinds of worms, and flies, which are of special use; such as are with you your silk-worms and bees.

" I will not hold you long with recounting of our brew-houses, bake-houses, and kitchens, where are made divers drinks, breads, and meats, rare, and of special effects. Wines we have of grapes; and drinks of other juice, of fruits, of grains, and of roots; and of mixtures with honey, sugar, manna, and fruits dried and decocted. Also of the tears or woundings of trees, and of the pulp of canes. And these drinks are of several ages, some to the age or last of forty years. We have drinks also brewed with several herbs, and roots, and spices; yea, with several fishes, and white-meats; whereof some of the drinks are such as they are in effect meat and drink both: so that divers, especially in age, do desire to live with them, with little or no meat, or bread. And above all, we strive to have drinks of extreme thin parts, to insinuate into the body, and yet



“ yet without all biting, sharpness, or fretting; inso much as some of them put  
 “ upon the back of your hand, will, with a little stay, pass through to the  
 “ palm, and yet taste mild to the mouth. We have also waters which we ripen  
 “ in that fashion, as they become nourishing; so that they are indeed excellent  
 “ drink; and many will use no other. Breads we have of several grains, roots,  
 “ and kernels; yea, and some of flesh, and fish, dried; with divers kinds of leaven-  
 “ ings and seasonings; so that some do extremely move appetites; some do nourish  
 “ so, as divers do live of them, without any other meat; who live very long.  
 “ So for meats, we have some of them so beaten, and made tender, and morti-  
 “ fied, yet without all corrupting, as a weak heat of the stomach will turn them  
 “ into good chylus, as well as a strong heat would meat otherwise prepared. We  
 “ have some meats also, and breads and drinks, which taken by men, enable  
 “ them to fast long after; and some other, that used make the very flesh of  
 “ mens bodies sensibly more hard and tough and their strength far greater, than  
 “ otherwise it would be.

“ We have dispensaries, or shops of medicines; wherein you may easily  
 “ think, if we have such variety of plants and living creatures, more than you  
 “ have in Europe (for we know what you have) the simples, drugs, and ingre-  
 “ dients of medicines, must likewise be in so much the greater variety. We  
 “ have them likewise of divers ages, and long fermentations. And for their  
 “ preparations, we have not only all manner of exquisite distillations and separa-  
 “ tions, and especially by gentle heats and percolations through divers strainers,  
 “ yea, and substances; but also exact forms of composition, whereby they in-  
 “ corporate almost as they were natural simples.

“ We have also divers mechanical arts, which you have not; and stuffs made  
 “ by them; as papers, linen, silks, tissues; dainty works of feathers of wonder-  
 “ ful lustre; excellent dyes, and many others: and shops likewise as well for  
 “ such as are not brought into vulgar use amongst us, as for those that are. For  
 “ you must know, that of the things before recited, many of them are grown  
 “ into use throughout the kingdom; but yet, if they did flow from our invention,  
 “ we have of them also for patterns and principals.

“ We have also furnaces of great diversities, and that keep great diversity of  
 “ heats; fierce and quick; strong and constant; soft and mild; blown, quiet,  
 “ dry, moist; and the like. But above all, we have heats in imitation of the  
 “ sun's and heavenly bodies heats, that pass divers inequalities, and (as it were)  
 “ orbs, progresses, and returns, whereby we produce admirable effects. Besides,  
 “ we have heats of dungs, and of bellies and maws of living creatures, and of their  
 “ bloods and bodies; and of hays and herbs laid up moist; of slime unquenched;  
 “ and such like. Instruments also which generate heat only by motion. And  
 “ farther, places for strong insulations: and again, places under the earth, which  
 “ by nature, or art, yield heat. These divers heats we use, as the nature of the  
 “ operation, which we intend, requireth.

“ We have also perspective houses, where we make demonstrations of all lights  
 “ and radiations; and of all colours; and out of things uncoloured and trans-  
 “ parent, we can represent unto you all several colours: not in rain-bows (as it  
 “ is in gems and prisms) but of themselves single. We represent also all multi-  
 “ plications of light, which we carry to great distance; and make so sharp,  
 “ as to discern small points and lines: also all colorations of light: all delusions  
 “ and deceits of the sight, in figures, magnitudes, motions, colours: all demon-  
 “ strations of shadows. We find also divers means yet unknown to you, of pro-  
 “ ducing of light, originally, from divers bodies. We procure means of seeing  
 “ objects afar off; as in the heaven, and remote places; and represent things  
 “ near as far off; and things afar off as near; making feigned distances. We  
 “ have also helps for the sight, far above spectacles and glasses in use. We have  
 “ also glasses and means, to see small and minute bodies, perfectly and distinctly;  
 “ as the shapes and colours of small flies and worms, grains, and flaws in gems,  
 “ which cannot otherwise be seen; observations in urine and blood, not other-  
 “ wise to be seen. We make artificial rain-bows, halo's, and circles about light.  
 “ We represent also all manner of reflexions, refractions, and multiplications of  
 “ visual beams of objects.



“ We have also precious stones of all kinds, many of them of great beauty, and to you unknown; crystals likewise; and glasses of divers kinds; and amongst them some of metals vitrified, and other materials, besides those of which you make glass. Also a number of fossils, and imperfect minerals, which you have not. Likewise load-stones of prodigious virtue; and other rare stones, both natural and artificial.

“ We have also sound-houses, where we practise and demonstrate all sounds, and their generation. We have harmonies which you have not, of quarter-sounds, and lesser slides of sounds. Divers instruments of musick likewise to you unknown, some sweeter than any you have; together with bells and rings that are dainty and sweet. We represent small sounds as great and deep; likewise great sounds, extenuate and sharp; we make divers tremblings and warblings of sounds, which in their original are entire. We represent and imitate all articulate sounds and letters, and the voices and notes of beasts and birds. We have certain helps, which set to the ear do further the hearing greatly. We have also divers strange and artificial echoes, reflecting the voice many times, and as it were tossing it: and some that give back the voice louder than it came, some shriller, and some deeper; yea, some rendering the voice differing in the letters or articulate sound from that they receive. We have also means to convey sounds in trunks and pipes, in strange lines and distances.

“ We have also perfume-houses; wherewith we join also practices of taste. We multiply smells, which may seem strange. We imitate smells, making all smells to breathe out of other mixtures than those that give them. We make divers imitations of taste likewise, so that they will deceive any man's taste. And in this house we contain also a confiture-house; where we make all sweet-meats, dry and moist; and divers pleasant wines, milks, broths, and fallads, in far greater variety than you have.

“ We have also engine-houses, where are prepared engines and instruments for all sorts of motions. There we imitate and practise to make swifter motions than any you have, either out of your muskets, or any engine that you have; and to make them, and multiply them more easily, and with small force, by wheels, and other means: and to make them stronger and more violent than yours are; exceeding your greatest cannons and basilisks. We represent also ordinance and instruments of war, and engines of all kinds: and likewise new mixtures and compositions of gun-powder, wild-fires burning in water, and unquenchable. Also fire-works of all variety both for pleasure and use. We imitate also flights of birds; we have some degrees of flying in the air; we have ships and boats for going under water, and brooking of seas; also swimming-girdles and supporters. We have divers curious clocks, and other like motions of return, and some perpetual motions. We imitate also motions of living creatures, by images of men, beasts, birds, fishes, and serpents; we have also a great number of other various motions, strange for equality, fineness, and subtilty.

“ We have also a mathematical house, where are represented all instruments, as well of geometry, as astronomy, exquisitely made.

“ We have also houses of deceits of the senses; where we represent all manner of feats of juggling, false apparitions, impostures, and illusions; and their fallacies. And surely you will easily believe, that we that have so many things truly natural, which induce admiration, could in a world of particulars deceive the senses, if we would disguise those things, and labour to make them seem more miraculous. But we do hate all impostures and lyes: inasmuch as we have severely forbidden it to all our fellows, under pain of ignominy and fines, that they do not shew any natural work or thing, adorned or swelling; but only pure as it is, and without all affectation of strangeness.

“ These are (my son) the riches of Solomon's house.

“ For the several employments and offices of our fellows; we have twelve that sail into foreign countries, under the names of other nations (for our own



“own we conceal) who bring us the books, and abstracts, and patterns of experiments of all other parts. These we call merchants of light.

“We have three that collect the experiments which are in all books. These we call depredators.

“We have three that collect the experiments of all mechanical arts; and also of liberal sciences; and also of practices which are not brought into arts.

“These we call mystery-men.

“We have three that try new experiments, such as themselves think good.

“These we call pioneers or miners.

“We have three that draw the experiments of the former four into titles, and tables, to give the better light for the drawing of observations and axioms out of them. These we call compilers.

“We have three that bend themselves, looking into the experiments of their fellows, and cast about how to draw out of them things of use and practice for man's life and knowledge, as well for works, as for plain demonstration of causes, means of natural divinations, and the easy and clear discovery of the virtues and parts of bodies. These we call dowsy-men or benefactors.

“Then after divers meetings and consults of our whole number, to consider of the former labours and collections, we have three that take care, out of them, to direct new experiments, of a higher light, more penetrating into nature than the former. These we call lamps.

“We have three others that do execute the experiments so directed, and report them. These we call inoculators.

“Lastly, we have three that raise the former discoveries by experiments, into greater observations, axioms, and aphorisms. These we call interpreters of nature.

“We have also, as you must think, novices and apprentices, that the succession of the former employed men do not fail; besides a great number of servants, and attendants, men and women. And this we do also: we have consultations, which of the inventions and experiences which we have discovered, shall be published, and which not: and take all an oath of secrecy, for the concealing of those which we think fit to keep secret: though some of those we do reveal sometimes to the state, and some not.

“For our ordinances and rites: we have two very long and fair galleries:

“in one of these we place patterns and samples of all manner of the more rare and excellent inventions: in the other we place the statues of all principal inventors. There we have the statue of your Columbus, that discovered the West-Indies: also the inventor of ships: your monk that was the inventor of ordinance, and of gun-powder: the inventor of musick: the inventor of letters: the inventor of printing: the inventor of observations of astronomy: the inventor of works in metal: the inventor of glass: the inventor of silk of the worm: the inventor of wine: the inventor of corn and bread: the inventor of sugars: and all these by more certain tradition than you have. Then have we divers inventors of our own of excellent works; which since you have not seen, it were too long to make descriptions of them; and besides, in the right understanding of those descriptions, you might easily err. For upon every invention of value, we erect a statue to the inventor, and give him a liberal and honourable reward. These statues are, some of brass; some of marble and touchstone; some of cedar, and other special woods gilt and adorned: some of iron; some of silver; some of gold.

“We have certain hymns and services, which we say daily, of laud and thanks to God for his marvellous works: and forms of prayers, imploring his aid and blessing for the illumination of our labours; and the turning of them into good and holy uses.

“Lastly, we have circuits or visits of divers principal cities of the kingdom; where, as it cometh to pass, we do publish such new profitable inventions as we think good. And we do also declare natural divinations of diseases, plagues, swarms of hurtful creatures, scarcity, tempests, earthquakes, great  
Vol. I.



“inundations, comets, temperature of the year, and divers other things; and  
“we give counsel thereupon what the people shall do for the prevention and  
“remedy of them.”

AND when he had said this, he stood up: and I, as I had been taught, kneeled down; and he laid his right hand upon my head, and said; “God blest thee, my son; and God blest this relation which I have made. I give thee leave to publish it for the good of other nations; for we here are in God’s bosom, a land unknown.” And so he left me; having assigned a value of about two thousand ducats, for a bounty to me and my fellows. For they give great largesses where they come upon all occasions.

*The rest was not perfected.*



Mr. B A C O N

## In praise of KNOWLEDGE.

SILENCE were the best celebration of that, which I mean to commend ; for who would not use silence, where silence is not made ? and what cryer can make silence in such a noise and tumult of vain and popular opinions ? My praise shall be dedicated to the mind itself. The mind is the man, and the knowledge of the mind. A man is but what he knoweth. The mind itself is but an accident to knowledge ; for knowledge is a double of that which is. The truth of being, and the truth of knowing, is all one. And the pleasures of the affections greater than the pleasures of the senses. And are not the pleasures of the intellect greater than the pleasures of the affections ? Is it not a true and only natural pleasure, whereof there is no satiety ? Is it not knowledge that doth alone clear the mind of all perturbations ? How many things are there which we imagine not ? How many things do we esteem and value otherwise than they are ? This ill-proportioned estimation, these vain imaginations, these be the clouds of error that turn into the storms of perturbation. Is there any such happiness as for a man's mind to be raised above the confusion of things ; where he may have the prospect of the order of nature, and the error of men ? Is this but a vein only of delight, and not of discovery ? of contentment, and not of benefit ? Shall we not as well discern the riches of nature's warehouse, as the benefit of her shop ? Is truth ever barren ? Shall he not be able thereby to produce worthy effects, and to endow the life of man with infinite commodities ? But shall I make this garland to be put upon a wrong head ? Would any body believe me, if I should verify this, upon the knowledge that is now in use ? Are we the richer by one poor invention, by reason of all the learning that hath been these many hundred years ? The industry of artificers maketh some small improvement of things invented ; and chance sometimes in experimenting, maketh us to stumble upon somewhat which is new : but all the disputation of the learned never brought to light one effect of nature before unknown. When things are known and found out, then they can descend upon them, they can knit them into certain causes, they can reduce them to their principles. If any instance of experience stand against them, they can range it in order by some distinctions. But all this is but a web of the wit, it can work nothing. I do not doubt but that common notions which we call reason, and the knitting of them together, which we call logick, are the art of reason and studies. But they rather cast obscurity, than gain light to the contemplation of nature. All the philosophy of nature which is now received, is either the philosophy of the Grecians, or that other of the alchemists. That of the Grecians hath the foundations in words, in ostentation, in confutation, in sects, in schools, in disputations. The Grecians were (as one of themselves sayeth, *you Grecians*) *ever children*. They knew little antiquity ; they knew (except fables) not much above five hundred years before themselves. They knew but a small portion of the world. That of the alchemists hath the foundation in imposture, in auricular traditions and obscurity. It was catching hold of religion, but the principle of it is, *Populus vult decipi*. So that I know no great difference between these great philosophers, but that the one is a loud crying folly, and the other is a whispering folly. The one is gathered out of a few vulgar observations, and the other out of a few experiments of a furnace. The one never faileth to multiply words, and the other ever faileth to multiply gold. Who would not smile at Aristotle, when he admireth the eternity and invariableness of the heavens, as there were not the like in the bowels of the earth ?



## IN PRAISE OF KNOWLEDGE.

earth? Those be the confines and borders of these two kingdoms, where the continual alteration and incursion are. The superficies and upper parts of the earth are full of varieties. The superficies and lower parts of the heavens (which we call the middle region of the air) is full of variety. There is much spirit in the one part, that cannot be brought into mass. There is much massy body in the other place, that cannot be refined to spirit. The common air is as the waste ground between the borders. Who would not smile at the astronomers, I mean not these few cartmen which drive the earth about, but the ancient astronomers, which feign the moon to be the swiftest of the planets in motion, and the rest in order, the higher the slower; and so are compelled to imagine a double motion: whereas how evident is it, that that which they call a contrary motion, is but an abatement of motion? The fixed stars overgo Saturn, and so in them and the rest all is but one motion, and the nearer the earth the slower. A motion also whereof air and water do participate, though much interrupted. But why do I in a conference of pleasure enter into these great matters, in sort that pretending to know much I should forget what is reasonable? Pardon me, it was because all things may be indowed and adorned with speeches, but knowledge itself is more beautiful than any apparel of words that can be put upon it. And let not me seem arrogant without respect to these great reputed authors. Let me so give every man his due, as I give time his due, which is to discover truth. Many of these men had greater wits, far above mine own, and so are many in the universities of Europe, at this day. But alas, they learn nothing there but to believe: first to believe that others know that which they know not; and after themselves know that which they know not. But indeed facility to believe, impatience to doubt, temerity to answer, glory to know, doubt to contradict, end to gain, sloth to search, seeking things in words, resting in part of nature; these, and the like, have been the things which have forbidden the happy match between the mind of man, and the nature of things; and in place thereof have married it to vain notions, and blind experiments: and what the posterity and issue of so honourable a match may be, it is not hard to consider. Printing, a gross invention; artillery, a thing that lay not far out of the way; the needle, a thing partly known before: what a change have these three made in the world in these times; the one in state of learning, the other in state of the war, the third in the state of treasure, commodities, and navigation? And those, I say, were but stumbled upon and lighted upon by chance. Therefore, no doubt the sovereignty of man lieth hid in knowledge; wherein many things are reserved, which kings with their treasure cannot buy, nor with their force command; their spies and intelligencers can give no news of them, their seamen and discoverers cannot sail where they grow: now we govern nature in opinions, but we are thrall unto her in necessity; but if we would be led by her in invention, we should command her in action.



VALERIUS TERMINUS  
OF THE

INTERPRETATION OF NATURE:

WITH THE

ANNOTATIONS OF HERMES STELLA.

A few fragments of the first book.

[None of the Annotations of Stella are set down in these fragments.]

CHAP. I. Of the limits and end of knowledge.

IN the divine nature, both religion and philosophy hath acknowledged goodness in perfection, science or providence comprehending all things, and absolute sovereignty or kingdom. In aspiring to the throne of power, the angels transgressed and fell; in presuming to come within the oracle of knowledge, man transgressed and fell; but in pursuit towards the similitude of God's goodness or love (which is one thing, for love is nothing else but goodness put in motion or applied) neither man or spirit ever hath transgressed, or shall transgress.

The angel of light that was, when he presumed before his fall, said within himself, *I will ascend and be like unto the Highest*; not God, but the Highest. To be like to God in goodness, was no part of his emulation: knowledge, being in creation an angel of light, was not the want which did most solicit him; only because he was a minister he aimed at a supremacy; therefore his climbing or ascension was turned into a throwing down or precipitation.

Man on the other side, when he was tempted before he fell, had offered unto him this suggestion, *that he should be like unto God*. But how? not simply, but in this part, *knowing good and evil*. For being in his creation invested with sovereignty of all inferior creatures, he was not needy of power or dominion. But again, being a spirit newly enclosed in a body of earth, he was fittest to be allured with appetite of light and liberty of knowledge. Therefore this approaching and intruding into God's secrets and mysteries, was rewarded with a further removing and estranging from God's presence. But as to the goodness of God, there is no danger in contending or advancing towards a similitude thereof; as that which is open and propounded to our imitation. For that voice (whereof the heathen and all other errors of religion have ever confessed that it sounds not like man) *Love your enemies; be you like unto your heavenly Father, that suffereth his rain to fall both upon the just and the unjust*, doth well declare, that we can in that point commit no excess. So again we find it often repeated in the old law, *Be you holy as I am holy*; and what is holiness else but goodness, as we consider it separate, and guarded from all mixture, and all access of evil?

Wherefore seeing that knowledge is of the number of those things which are to be accepted of with caution and distinction; being now to open a fountain, such as it is not easy to discern where the issues and streams thereof will take and fall; I thought it good and necessary in the first place, to make a strong and sound head or bank to rule and guide the course of the waters; by setting down this position or firmament, namely, *That all knowledge is to be limited by religion, and to be referred to use and action*.



## OF THE INTERPRETATION

For if any man shall think, by view and enquiry into these sensible and material things, to attain to any light for the revealing of the nature or will of God; he shall dangerously abuse himself. It is true, that the contemplation of the creatures of God hath for end (as to the natures of the creatures themselves) knowledge; but as to the nature of God, no knowledge, but wonder: which is nothing else but contemplation broken off, or losing itself. Nay further, as it was aptly said by one of Plato's school, *the sense of man resembles the sun, which openeth and revealeth the terrestrial globe, but obscureth and concealeth the celestial; so doth the sense discover natural things, but darken and shut up divine.* And this appeareth sufficiently in that there is no proceeding in invention of knowledge, but by similitude; and God is only self-like, having nothing in common with any creature, otherwise than as in shadow and trope. Therefore attend his will as himself openeth it, and give unto faith that which unto faith belongeth; for more worthy it is to believe, than to think or know, considering that in knowledge (as we now are capable of it) the mind suffereth from inferior natures; but in all belief it suffereth from a spirit, which it holdeth superior, and more authorized than itself.

To conclude; the prejudice hath been infinite, that both divine and human knowledge hath received by the intermingling and tempering of the one with the other; as that which hath filled the one full of heresies, and the other full of speculative fictions and vanities.

But now there are again, which, in a contrary extremity to those which give to contemplation an over-large scope, do offer too great a restraint to natural and lawful knowledge; being unjustly jealous that every reach and depth of knowledge wherewith their conceits have not been acquainted, should be too high an elevation of man's wit, and a searching and raveling too far into God's secrets; an opinion that ariseth either of envy (which is proud weakness, and to be censured and not confused) or else of a deceitful simplicity. For if they mean that the ignorance of a second cause doth make men more devoutly to depend upon the providence of God, as supposing the effects to come immediately from his hand; I demand of them, as Job demanded of his friends, *Will you lye for God, as man will for man to gratify him?* But if any man, without any sinister humour, doth indeed make doubt that this digging further and further into the mine of natural knowledge, is a thing without example, and uncommended in the Scriptures, or fruitless; let him remember and be instructed: for behold it was not that pure light of natural knowledge, whereby man in paradise was able to give unto every living creature a name according to his propriety, which gave occasion to the fall; but it was an aspiring desire to attain to that part of moral knowledge, which defineth of good and evil, whereby to dispute God's commandments, and not to depend upon the revelation of his will, which was the original temptation. And the first holy records, which within those brief memorials of things which passed before the flood, entered few things as worthy to be registered, but only images and propagations, yet nevertheless honour the remembrance of the inventor both of musick and works in metal. Moses again (who was the reporter) is said to have been seen in all the Egyptian learning, which nation was early and leading in matter of knowledge. And Solomon the king, as out of a branch of his wisdom extraordinarily petitioned and granted from God, is said to have written a natural history of all that is green, from the cedar to the moss (which is but a rudiment between putrefaction and an herb) and also of all that liveth and moveth. And if the book of Job be turned over, it will be found to have much asperion of natural philosophy. Nay, the same Solomon the king affirmeth directly, that the glory of God is to conceal a thing, but the glory of the king is to find it out, as if, according to the innocent play of children, the divine Majesty took delight to hide his works, to the end to have them found out; for in naming the king he intendeth man, taking such a condition of man as hath most excellency and greatest commandment of wits and means, alluding also to his own person, being truly one of those clearest burning lamps, whereof himself speaketh in another place, when he saith, *The spirit of man is as the lamp of God, wherewith he searcheth all inwardness;* which nature of the soul the same Solomon holding precious and inestimable, and therein conspiring with the affection of Socrates,

who



who scorned the pretended learned men of his time for raising great benefit of their learning (whereas Anaxagoras contrariwise, and divers others, being born to ample patrimonies, decayed them in contemplation) delivereth it in precept yet remaining, *Buy the truth, and sell it not; and so of wisdom and knowledge.*

And lest any man should retain a scruple, as if this thirst of knowledge were rather an humour of the mind, than an emptiness or want in nature, and an instinct from God; the same author defineth of it fully, saying, *God hath made every thing in beauty according to season; also he hath set the world in man's heart, yet can he not find out the work which God worketh from the beginning to the end: declaring not obscurely that God hath framed the mind of man as a glass, capable of the image of the universal world, joying to receive the signature thereof, as the eye is of light; yea, not only satisfied in beholding the variety of things, and vicissitude of times, but raised also to find out and discern those ordinances and decrees, which throughout all these changes are infallibly observed. And although the highest generality of motion, or summary law of nature, God should still reserve within his own curtain; yet many and noble are the inferior and secondary operations which are within man's sounding. This is a thing which I cannot tell whether I may so plainly speak as truly conceive, that as all knowledge appeareth to be a plant of God's own planting, so it may seem the spreading and flourishing, or at least the bearing and fruitifying of this plant, by a providence of God, nay, not only by a general providence, but by a special prophecy, was appointed to this autumn of the world: for to my understanding, it is not violent to the letter, and safe now after the event, so to interpret that place in the prophecy of Daniel, where, speaking of the latter times, it is said, *Many shall pass to and fro, and science shall be increased*; as if the opening of the world by navigation and commerce, and the further discovery of knowledge, should meet in one time or age.*

But howsoever that be, there are besides the authorities of Scriptures before recited, two reasons of exceeding great weight and force, why religion should dearly protect all increase of natural knowledge: the one, because it leadeth to the greater exaltation of the glory of God; for as the Psalms and other Scriptures do often invite us to consider, and to magnify the great and wonderful works of God; so if we should rest only in the contemplation of those shews which first offer themselves to our senses, we should do a like injury to the majesty of God, as if we should judge of the store of some excellent jeweller, by that only which is set out to the street in his shop. The other reason is, because it is a singular help and a preservative against unbelief and error: for saith our Saviour, *You err, not knowing the Scriptures, nor the power of God*; laying before us two books or volumes to study, if we will be secured from error; first, the Scriptures revealing the will of God, and then the creatures expressing his power; for that latter book will certify us, that nothing which the first teacheth shall be thought impossible. And most sure it is, and a true conclusion of experience, that a little natural philosophy inclineth the mind to atheism, but a further proceeding bringeth the mind back to religion.

To conclude then: Let no man presume to check the liberality of God's gifts, who, as was said, *hath set the world in man's heart*. So as whatsoever is not God, but parcel of the world, he hath fitted it to the comprehension of man's mind, if man will open and dilate the powers of his understanding as he may.

But yet evermore it must be remembered, that the least part of knowledge passed to man by this so large a charter from God, must be subject to that use for which God hath granted it, which is the benefit and relief of the state and society of man; for otherwise all manner of knowledge becometh malign and serpentine, and therefore, as carrying the quality of the serpent's sting and malice, it maketh the mind of man to swell; as the Scripture saith excellently, *Knowledge bloweth up, but charity buildeth up*. And again, the same author doth notably disavow both power and knowledge, such as is not dedicated to goodness or love; for saith he, *If I have all faith, so as I could remove mountains (there is power active) if I render my body to the fire (there is power passive) if I speak with the tongues of men and angels (there is knowledge, for language is but the conveyance of knowledge) all were nothing.*

And



## OF THE INTERPRETATION

And therefore it is not the pleasure of curiosity, nor the quiet of resolution, nor the raising of the spirit, nor victory of wit, nor faculty of speech, nor lucre of profession, nor ambition of honour or fame, or inablement for business, that are the true ends of knowledge; some of these being more worthy than other, though all inferior and degenerate: but it is a restitution and reinvesting (in great part) of man to the sovereignty and power (for whensoever he shall be able to call the creatures by their true names, he shall again command them) which he had in his first state of creation. And to speak plainly and clearly, it is a discovery of all operations and possibilities of operations from immortality (if it were possible) to the meanest mechanical practice. And therefore knowledge, that tendeth but to satisfaction, is but as a courtian, which is for pleasure, and not for fruit or generation. And knowledge that tendeth to profit or profession, or glory, is but as the golden ball thrown before Atalanta; which while she goeth aside, and stoopeth to take up, she hindreth the race. And knowledge referred to some particular point of use, is but as Harmodius, which putteth down one tyrant: and not like Hercules, who did perambulate the world to suppress tyrants and giants and monsters in every part.

It is true, that in two points the curse is peremptory, and not to be removed: the one, that vanity must be the end in all human effects; eternity being resumed, though the revolutions and periods may be delayed. The other, that the consent of the creature being now turned into reluctance, this power cannot otherwise be exercised and administered but with labour, as well in inventing as in executing; yet nevertheless chiefly that labour and travel which is described by the sweat of the brows, more than of the body; that is, such travel as is joined with the working and disquisition of the spirits in the brain: for as Solomon saith excellently, *The fool putteth to more strength, but the wise man considereth which way; signifying the election of the mean to be more material than the multiplication of endeavour.* It is true also, that there is a limitation rather potential than actual, which is when the effect is possible, but the time or place yieldeth not the matter or basis whereupon man should work. But notwithstanding these precincts and bounds, let it be believed, and appeal thereof made to time (with renunciation nevertheless to all the vain and abusing promises of alchemists and magicians, and such like light, idle, ignorant, credulous, and fantastical wits and sects) that the new-found world of land was not greater addition to the ancient continent, than there remaineth at this day a world of inventions and sciences unknown, having respect to those that are known, with this difference, that the ancient regions of knowledge will seem as barbarous, compared with the new; as the new regions of people seem barbarous, compared to many of the old.

The dignity of this end (of endowment of man's life with new commodities) appeareth by the estimation that antiquity made of such as guided thereunto; for whereas founders of states, law-givers, extirpers of tyrants, fathers of the people, were honoured but with the titles of worthies or demi-gods, inventors were ever consecrated amongst the Gods themselves. And if the ordinary ambitions of men lead them to seek the amplification of their own power in their countries, and a better ambition than that hath moved men to seek the amplification of the power of their own countries amongst other nations; better again and more worthy must that aspiring be, which seeketh the amplification of the power and kingdom of mankind over the world: the rather, because the other two prosecutions are ever culpable of much perturbation and injustice; but this is a work truly divine, which cometh *in aura leni*, without noise or observation.

The access also to this work hath been by that port or passage, which the divine Majesty (who is unchangeable in his ways) doth infallibly continue and observe; that is, the felicity wherewith he hath blessed an humility of mind, such as rather laboureth to spell, and so by degrees to read in the volumes of his creatures, than to solicit and urge, and as it were to invoke a man's own spirit to divine, and give oracles unto him. For as in the inquiry of divine truth, the pride of man hath ever inclined to leave the oracles of God's word, and to vanish in the mixture of their own inventions; so in the self-same manner, in inquisition of nature, they have ever left the oracles of God's works, and adored the deceiving and deformed imagery,



imagery, which the unequal mirrors of their own minds have represented unto them. Nay, it is a point fit and necessary in the front, and beginning of this work, without hesitation or reservation to be professed, that it is no less true in this human kingdom of knowledge, than in God's kingdom of heaven, that no man shall enter into it, *except he become first as a little child.*

*Of the impediments of knowledge.*

Being the IVth chapter, the preface only of it.

IN some things it is more hard to attempt than to atchieve; which falleth out, when the difficulty is not so much in the matter or subject, as it is in the crossness and indispotion of the mind of man to think of any such thing, to will or to resolve it; and therefore Titus Livius in his declamatory digression, wherein he doth deprels and extenuate the honour of Alexander's conquests, saith, *Nil aliud quam bene ausus vana contemere*: in which sort of things it is the manner of men first to wonder that any such thing should be possible, and after it is found out, to wonder again how the world should miss it so long. Of this nature, I take to be the invention and discovery of knowledge, *etc.*

*The impediments which have been in the times, and in diversion of wits.*

Being the Vth chapter, a small fragment in the beginning of that chapter.

THE incouters of the times have been nothing favourable and prosperous for the invention of knowledge, so as it is not only the daintiness of the seed to take, and the ill mixture and unliking of the ground to nourish or raise this plant, but the ill season also of the weather, by which it hath been checked and blasted. Especially in that the seasons have been proper to bring up and set forward other more hasty and indifferent plants, whereby this of knowledge hath been starved and overgrown; for in the descent of times always there hath been somewhat else in reign and reputation, which hath generally aliened and diverted wits and labours from that employment.

For as for the uttermost antiquity, which is like fame that muffles her head, and tells tales, I cannot presume much of it; for I would not willingly imitate the manner of those that describe maps, which when they come to some far countries, whereof they have no knowledge, set down how there be great wastes and desarts there: so I am not apt to affirm that they knew little, because what they knew is little known to us. But if you will judge of them by the last traces that remain to us, you will conclude, though not so scornfully as Aristotle doth, that faith our ancestors were extreme gross, as those that came newly from being moulded out of the clay, or some earthly substance; yet reasonably and probably thus, that it was with them in matter of knowledge, but as the dawning or break of day. For at that time the world was altogether home-bred, every nation looked little beyond their own confines or territories, and the world had no thorough lights then, as it hath had since by commerce and navigation, whereby there could neither be that contribution of wits one to help another, nor that variety of particulars for the correcting the customary conceits.

And as there could be no great collection of wits of several parts or nations, so neither could there be any succession of wits of several times, whereby one might refine the other, in regard they had not history to any purpose. And the manner of their traditions was utterly unfit and unproper for amplification of knowledge. And again, the studies of those times, you shall find, besides wars, incursions, and rapines, which were then almost every where betwixt states adjoining (the use of leagues and confederacies being not then known) were to populate by multitude of wives and generation, a thing at this day in the waster part of the West-Indies principally affected; and to build, sometimes for habitation, towns and cities; sometimes, for fame and metnory, monuments, pyramids, colosses, and the like. And if there happened to rise up any more civil



## OF THE INTERPRETATION

wits; then would he found and erect some new laws, customs and usages, such as now of late years, when the world was revolute almost to the like rudeness and obscurity, we see both in our own nation and abroad many examples of, as well in a number of tenures reserved upon mens lands, as in divers customs of towns and manors, being the devices that such wits wrought upon in such times of deep ignorance, etc.

*The impediments of knowledge for want of a true succession of wits, and that hitherto the length of one man's life hath been the greatest measure of knowledge.*

Being the VIth chapter, the whole chapter.

**I**N arts mechanical the first devise cometh shortest, and time addeth and perfecteth. But in sciences of conceit, the first author goeth furthest, and time leeleth and corrupteth. Painting, artillery, sailing, and the like grossly managed at first, by time accommodate and refined. The philosophies and sciences of Aristotle, Plato, Democritus, Hippocrates, of most vigour at first, by time degenerated and imbas'd. In the former many wits and industries contributed in one. In the latter many mens wits spent to deprave the wit of one.

The error is both in the deliverer and in the receiver. He that delivereth knowledge, desireth to deliver it in such form as may be soonest believed, and not as may easiest be examined. He that receiveth knowledge, desireth rather present satisfaction than expectant search, and so rather not to doubt than not to err. Glory maketh the author not to lay open his weakness: and sloth maketh the disciple not to know his strength.

Then begin men to aspire to the second prizes, to be a profound interpreter and commenter, to be a sharp champion and defender, to be a methodical compounder and abridger. And this is the unfortunate succession of wits which the world hath yet had, whereby the patrimony of all knowledge goeth not on husbanded or improved, but wasted and decayed. For knowledge is like a water, that will never arise again higher than the level from which it fell. And therefore to go beyond Aristotle by the light of Aristotle, is to think that a borrowed light can increase the original light from whom it is taken. So then, no true succession of wits having been in the world; either we must conclude, that knowledge is but a talk for one man's life, and then vain was the complaint, *that life is short, and art is long*: or else, that the knowledge that now is, is but a shrub; and not that tree which is never dangerous, but where it is to the purpose of knowing good and evil; which desire ever riseth upon an appetite to elect, and not to obey, and so containeth in it a manifest defection.

*That the pretended succession of wits hath been evil placed, for as much as after variety of sects and opinions, the most popular and not the truest prevaileth and weareth out the rest.*

Being the VIIth chapter, a fragment.

**I**T is sensible to think, that when men enter first into search and enquiry, according to the several frames and compositions of their understanding, they light upon differing conceits, and so all opinions and doubts are beaten over; and then men having made a taste of all, wax weary of variety, and so reject the worst, and hold themselves to the best, either some one, if it be eminent; or some two or three, if they be in some equality; which afterwards are received and carried on, and the rest extinct.

But troth is contrary; and that time is like a river, which carrieth down things which are light and blown up, and sinketh and drowneth that which is sad and weighty. For howsoever governments have several forms, sometimes one governing, sometimes few, sometimes the multitude; yet the state of knowledge is ever a democracy, and that prevaileth which is most agreeable to the senses and conceits of people. As for example, there is no great doubt, but he that did  
put



put the beginnings of things to be solid, void, and motion to the center, was in better earnest than he that put matter, form, and shift; or he that put the mind, motion, and matter. For no man shall enter into inquisition of nature, but shall pass by that opinion of Democritus; whereas he shall never come near the other two opinions, but leave them aloof, for the schools and table-talk. Yet those of Aristotle and Plato, because they be both agreeable to popular sense, and the one was uttered with subtilty and the spirit of contradiction, and the other with a style of ornament and majesty, did hold out, and the other gave place, *etc.*

*Of the impediments of knowledge, in handling it by parts, and in slipping off particular sciences from the root and stock of universal knowledge.*

Being the VIIIth chapter, the whole chapter.

CICERO the orator, willing to magnify his own profession, and thereupon spending many words to maintain that eloquence was not a shop of good words and elegancies, but a treasury and receipt of all knowledges, so far forth as may appertain to the handling and moving of the minds and affections of men by speech; maketh great complaint of the school of Socrates; that whereas before his time the same professors of wisdom in Greece did pretend to teach an universal sapience and knowledge both of matter and words, Socrates divorced them, and withdrew philosophy, and left rhetoric to itself, which by that destitution became but a barren and un noble science. And in particular sciences we see, that if men fall to subdivide their labours, as to be an oculist in physick, or to be perfect in some one title of the law or the like, they may prove ready and subtle, but not deep or sufficient, no not in that subject which they do particularly attend, because of that consent which it hath with the rest. And it is a matter of common discourse, of the chain of sciences, how they are linked together, in so much as the Grecians, who had terms at will, have fitted it of a name of Circle Learning. Nevertheless I that hold it for a great impediment towards the advancement and further invention of knowledge, that particular arts and sciences have been incorporated from general knowledge, do not understand one and the same thing, which Cicero's discourse, and the note and conceit of the Grecians in their word Circle-Learning do intend. For I mean not that use which one science hath of another for ornament or help in practice, as the orator hath of knowledge of affections for moving, or as military science may have use of geometry for fortifications; but I mean it directly of that use by way of supply of light and information, which the particulars and instances of one science do yield and present for the framing or correcting of the axioms of another science in their very truth and notion. And therefore that example of oculists and title lawyers doth come nearer my conceit than the other two; for sciences distinguished have a dependence upon universal knowledge to be augmented and rectified by the superior light thereof; as well as the parts and members of a science have upon the maxims of the same science, and the mutual light and consent which one part receiveth of another. And therefore the opinion of Copernicus in astronomy, which astronomy itself cannot correct, because it is not repugnant to any of the appearances; yet natural philosophy doth correct. On the other side, if some of the ancient philosophers had been perfect in the observations of astronomy, and had called them to counsel when they made their principles and first axioms, they would never have divided their philosophy, as the cosmographers do their descriptions by globes, making one philosophy for heaven, and another for under heaven, as in effect they do.

So if the moral philosophers, that have spent such an infinite quantity of debate touching good, and the highest good, had cast their eye abroad upon nature, and beheld the appetite that is in all things to receive and to give; the one motion affecting preservation, and the other multiplication; which appetites are most evidently seen in living creatures, in the pleasure of nourishment and generation; and in man do make the aptest and most natural division of all his desires, being either



## OF THE INTERPRETATION

either of sense of pleasure, or sense of power; and in the universal frame of the world are figured, the one in the beams of heaven which issue forth, and the other in the lap of the earth which takes in: and again, if they had observed the motion of congruity, or situation of the parts in respect of the whole, evident in so many particulars: and lastly, if they had considered the motion (familiar in attraction of things) to approach to that which is higher in the same kind: when by these observations, so easy and concurring in natural philosophy, they should have found out this quaternion of good, in enjoying or fruition, effecting or operation, consenting or proportion, and approach or assumption; they would have saved and abridged much of their long and wandering discourses of pleasure, virtue duty, and religion. So likewise in this same logick and rhetoric, or acts of argument and grace of speech, if the great masters of them would but have gone a form lower, and looked but into the observations of grammar concerning the kinds of words, their derivations, deflexions, and syntax, specially enriching the same, with the helps of several languages, with their differing proprieties of words, phrases and tropes; they might have found out more and better footsteps of common reason, help of disputation, and advantages of cavillation, than many of these which they have propounded. So again, a man should be thought to dally, if he did note how the figures of rhetoric and musick are many of them the same. The repetitions and traductions in speech, and the reports and hauntings of sounds in musick, are the very same things. Plutarch hath almost made a book of the Lacedemonian kind of jesting, which joined ever pleasure with distaste. "Sir," (said a man of art to Philip king of Macedon, when he controlled him in his faculty) "God forbid your fortune should be such as to know these things better than I." In taxing his ignorance in his art, he represented to him the perpetual greatness of his fortune, leaving him no vacant time for so mean a skill. Now in musick it is one of the ordinarieſt flowers to fall from a discord, or hard tune, upon a sweet accord. The figure that Cicero and the rest commend, as one of the best points of elegancy, which is the fine checking of expectation, is no less well known to the musicians, when they have a special grace in flying the close or cadence. And these are no allusions but direct communities, the same delights of the mind being to be found not only in musick, rhetoric, but in moral philosophy, policy, and other knowledges, and that obscure in the one, which is more apparent in the other; yea, and that discovered in the one which is not found at all in the other; and so one science greatly aiding to the invention and augmentation of another. And therefore, without this intercourse, the axioms of sciences will fall out to be neither full nor true; but will be such opinions, as Aristotle in some places doth wisely censure, when he saith, "These are the opinions of persons that have respect but to a few things." So then we see, that this note leadeth us to an administration of knowledge in some such order and policy, as the king of Spain, in regard of his great dominions, useth in state: who though he hath particular councils for several countries and affairs, yet hath one council of state, or last resort, that receiveth the advertisements and certificates from all the rest. Hitherto of the diversion, succession, and conference of wits.

*That the end and scope of knowledge hath been generally mistaken, and that men were never well advised what it was they sought.*

Being the IXth chapter, immediately preceding the Inventory, and inducing the same.

IT appeareth then how rarely the wits and labours of men have been converted to the severe and original inquisition of knowledge; and in those who have pretended, what hurt hath been done by the affectation of professors, and the distraction of such as were no professors; and how there was never in effect any conjunction or combination of wits in the first and inducing search, but that every man wrought apart, and would either have his own way, or else would go no further than his guide, having in the one case the honour of a first, and in the other the ease of a second; and lastly, how in the descent and continuance of wits and



and labours, the succession hath been in the most popular and weak opinions, like unto the weakest natures, which many times have most children; and in them also the condition of succession hath been rather to defend and to adorn, than to add; and if to add, yet that addition to be rather a refining of a part, than an increase of the whole. But the impediments of time and accidents, though they have wrought a general indisposition, yet are they not so peremptory and binding, as the internal impediments and clouds in the mind and spirit of man, whereof it now followeth to speak.

The Scripture, speaking of the worst sort of error, saith, *Errare fecit eos in itinere et non in via*. For a man may wander in the way, by rounding up and down; but if men have failed in their very direction and address, that error will never by good fortune correct itself. Now it hath fared with men in their contemplations, as Seneca saith it fareth with them in their actions, *De partibus vitæ quisque deliberat, de summa nemo*. A course very ordinary with men who receive for the most part their final ends from the inclination of their nature, or from common example and opinion, never questioning or examining them, nor reducing them to any clear certainty; and use only to call themselves to account and deliberation touching the means and second ends, and thereby set themselves in the right way to the wrong place. So likewise upon the natural curiosity and desire to know, they have put themselves in way without foresight or consideration of their journey's end.

For I find that even those that have sought knowledge for itself, and not for benefit, or ostentation, or any practical inableness in the course of their life, have nevertheless propounded to themselves a wrong mark, namely satisfaction (which men call truth) and not operation. For as in the courts and services of princes and states, it is a much easier matter to give satisfaction than to do the business; so in the inquiring of causes and reasons it is much easier to find out such causes as will satisfy the mind of man and quiet objections, than such causes as will direct him and give him light to new experiences and inventions. And this did Celsus note wisely and truly, how that the causes which are in use, and whereof the knowledges now received do consist, were in time minors and subsequents to the knowledge of the particulars out of which they were induced and collected; and that it was not the light of those causes which discovered particulars, but only the particulars being first found, men did fall on glossing and discoursing of the causes; which is the reason, why the learning that now is hath the curse of barrenness, and is courtisan-like, for pleasure, and not for fruit. Nay, to compare it rightly, the strange fiction of the poets of the transformation of Scylla, seemeth to be a lively emblem of this philosophy and knowledge: a fair woman upward in the parts of show, but when you come to the parts of use and generation, barking monsters; for no better are the endless distorted questions, which ever have been, and of necessity must be, the end and womb of such knowledge. . . . .

But yet nevertheless, here I may be mistaken, by reason of some which have much in their pen the referring sciences to action and the use of man, which mean quite another matter than I do. For they mean a contriving of directions, and precepts for readiness of practice, which I discommend not, so it be not occasion that some quantity of the science be lost; for else it will be such a piece of husbandry, as to put away a manor lying somewhat scattered, to buy in a close that lieth handsomely about a dwelling. But my intention contrarywise is to increase and multiply the revenues and possessions of man, and not to trim up only, or order with convenience the grounds whereof he is already stated. Wherefore the better to make myself understood, that I mean nothing less than words, and directly to demonstrate the point which we are now upon, that is, what is the true end, scope, or office of knowledge, which I have set down to consist not in any plausible, delectable, reverend or admired discourse, or any satisfactory arguments, but in effecting and working, and in discovery of particulars not revealed before, for the better endowment and help of man's life; I have thought good to make, as it were, a kalendar or inventory of the wealth, furniture, or means of man, according to his present estate, as far as it is known; which I do



## OF THE INTERPRETATION

not to shew any universality of sense or knowledge, and much less to make a satire of reprehension in respect of wants and errors, but partly because cogitations new had need of some grossness and inculcation to make them perceived, and chiefly to the end, that for the time to come (upon the account and state now made and cast up) it may appear what increase this new manner of use and administration of the Rock (if it be once planted) shall bring with it hereafter; and for the time present (in case I should be prevented by death to propound and reveal this new light as I purpose) yet I may at the least give some awaking note, both of the wants in man's present condition, and the nature of the supplies to be wished; though for mine own part neither do I much build upon my present anticipations, neither do I think ourselves yet learned or wise enough to wish reasonably: for as it asks some knowledge to demand a question not impertinent; so it asketh some sense, to make a wish not absurd.

*The Inventory, or an enumeration and view of inventions already discovered in use, together with a note of the wants, and the nature of the supplies.*

Being the Xth chapter; and this a small fragment thereof, being the preface to the Inventory.

**T**HE plainest method, and most directly pertinent to this intention, will be to make distribution of sciences, arts, inventions, works, and their portions, according to the use and tribute which they yield and render to the conditions of man's life, and under those several uses, being as several offices of provisions, to charge and tax what may be reasonably exacted or demanded, not guiding ourselves neither by the poverty of experiences and probations, nor according to the vanity of credulous imaginations; and then upon those charges and taxations to distinguish and present, as it were, in several columns, what is extant and already found, and what is defective and further to be provided. Of which provisions, because in many of them, after the manner of slothful and faulty officers and accomprants, it will be returned (by way of excuse) that no such are to be had, it will be fit to give some light of the nature of the supplies, whereby it will evidently appear, that they are to be compassed and procured. And yet nevertheless on the other side again, it will be as fit to check and controul the vain and void assignations and gifts, whereby certain ignorant, extravagant, and abusing wits have pretended to induce the state of man with wonders, differing as much from truth in nature, as Caesar's commentaries differeth from the acts of King Arthur, or Huon of Bourdeaux, in story. For it is true that Caesar did greater things than those idle wits had the audacity to feign their supposed worthies to have done; but he did them not in that monstrous and fabulous manner.

*The chapter immediately following the Inventory.*

Being the XIth in order, a part thereof.

**I**T appeareth then what is now in proposition, not by general circumlocution, but by particular note, no former philosophy varied in terms or method; no new placet or speculation upon particulars already known; no referring to action, by any manual of practice; but the revealing and discovering of new inventions and operations. This to be done without the errors and conjectures of art, or the length or difficulties of experience; the nature and kinds of which inventions have been described as they could be discovered; for year eye cannot pass one kenning without further sailing: only we have stood upon the best advantages of the notions received, as upon a mount, to shew the knowledges adjacent and consining. If therefore the true end of knowledge, not propounded, hath bred large error, the best and perfectest condition of the same end, not perceived, will cause some declination. For when the butt is set up, men need not rove, but except the white be placed, men cannot level. This perfection we mean,



mean, not in the worth of the effects, but in the nature of the direction, for our purpose is not to stir up mens hopes, but to guide their travels. The fulness of direction to work, and produce any effect, consisteth in two conditions, certainty and liberty. Certainty is, when the direction is not only true for the most part, but infallible. Liberty is, when the direction is not restrained to some definite means, but comprehendeth all the means and ways possible; for the poet saith well, *Sapientibus undique latae sunt viae*; and where there is the greatest plurality of change, there is the greatest singularity of choice. Besides, as a conjectural direction maketh a casual effect, so a particular and restrained direction is no less casual than uncertain. For those particular means wherunto it is tyed, may be out of your power, or may be accompanied with an overvalue of prejudice; and so if for want of certainty in direction, you are frustrated in success, for want of variety in direction, you are stopped in attempt. If therefore your direction be certain, it must refer you, and point you to somewhat, which if it be present, the effect you seek will of necessity follow, else may you perform and not obtain. If it be free, then must it refer you to somewhat, which if it be absent, the effect you seek will of necessity withdraw, else may you have power and not attempt. This notion Aristotle had in light, though not in use. For the two commended rules by him set down, whereby the axioms of sciences are precepted to be made convertible, and which the latter men have not without elegancy surnamed, the one the rule of truth, because it preventeth deceit; the other the rule of prudence, because it freeth election; are the same thing in speculation and affirmation, which we now observe. An example will make my meaning attained, and yet percase make it thought that they attained it not.

Let the effect to be produced be whiteness; let the first direction be, that if air and water be intermingled, or broken in small portions together, whiteness will ensue; as in snow, in the breaking of the ways of the sea and rivers, and the like. This direction is certain, but very particular; and restrained, being tyed but to air and water. Let the second direction be, that if air be mingled as before with any transparent body, such nevertheless as is uncoloured and more grossly transparent than air itself, that then, *etc.* as glass or crystal, being beaten to fine powder, by the interposition of the air becometh white; the white of an egg, being clear of itself, receiving air by agitation, becometh white, receiving air by concoction becometh white; here you are freed from water, and advanced to a clear body, and still tyed to air. Let the third direction exclude or remove the restraint of an uncoloured body, as in amber, sapphires, *etc.* which beaten to fine powder, become white in wine and beer; which brought to froth, become white. Let the fourth direction exclude the restraint of a body more grossly transparent than air, as in flame, being a body compounded between air and a finer substance than air; which flame, if it were not for the smoke, which is the third substance that incorporateth itself and dieth, the flame would be more perfect white. In all these four directions air still beareth a part. Let the fifth direction then be, that if any bodies, both transparent, but in an unequal degree, be mingled as before, whiteness will follow: as oil and water beaten to an ointment, though by settling, the air which gathereth in the agitation be evaporate, yet remaineth white; and the powder of glass or crystal, put into water, whereby the air giveth place, yet remaineth white, though not so perfect. Now are you freed from air, but still you are tyed to transparent bodies. To ascend further by scale I do forbear, partly because it would draw on the example to an overgreat length, but chiefly because it would open that which in this work I determine to reserve; for to pass through the whole history and observation of colours and objects visible, were too long a digression; and our purpose is now to give an example of a free direction, thereby to distinguish and describe it; and not to set down a form of interpretation how to recover and attain it. But as we intend not now to reveal, so we are circumspect not to mislead; and therefore (this warning being given) returning to our purpose in hand, we admit the sixth direction to be, that all bodies, or parts of bodies, which are unequal equally, that is, in a simple proportion; do represent whiteness; we will explain this, though we induce it not. It is then to be understood, that absolute equality produceth



## OF THE INTERPRETATION

produceth transparence, inequality in simple order or proportion produceth whiteness, inequality in compound or respective order or proportion produceth other colours, and absolute or orderless inequality produceth blackness; which diversity, if so gross a demonstration be needful, may be signified by four tables; a blank, a chequer, a fret, and a medley; whereof the fret is evident to admit great variety. Out of this assertion are satisfied a multitude of effects and observations, as that whiteness and blackness are most incompatible with transparence; that whiteness keepeth light, and blackness stoppeth light, but neither passeth it; that whiteness or blackness are never produced in rainbows, diamonds, crystals, and the like; that white giveth no dye, and black hardly taketh dye; that whiteness seemeth to have an affinity with dryness, and blackness with moisture; that adustion causeth blackness, and calcination whiteness; that flowers are generally of fresh colours, and rarely black, *etc.* all which I do now mention confusedly by way of derivation, and not by way of induction. This sixth direction, which I have thus explained, is of good and competent liberty, for whiteness fixed and inherent; but not for whiteness fantastical, or appearing, as shall be afterwards touched. But first do you need a reduction back to certainty or verity; for it is not all position or contexture of unequal bodies that will produce colours; for *aqua fortis*, oil of vitriol, *etc.* more manifestly, and many other substances more obscurely, do consist of very unequal parts, which yet are transparent and clear. Therefore the reduction must be, that the bodies or parts of bodies so intermingled as before, be of a certain grossness or magnitude; for the unequalities which move the sight must have a further dimension and quantity, than those which operate many other effects. Some few grains of saffron will give a tincture to a tun of water, but so many grains of civet will give a perfume to a whole chamber of air. And therefore when Democritus (from whom Epicurus did borrow it) held that the position of the solid portions was the cause of colours; yet in the very truth of this assertion he should have added, that the portions are required to be of some magnitude. And this is one cause why colours have little inwardness, and necessity with the nature and proprieties of things, those things resembling in colour, which otherwise differ most, as salt and sugar; and contrariwise differing in colour, which otherwise resemble most, as the white and blue violets, and the several veins of one agate or marble, by reason that other virtues consist in more subtle proportions than colours do; and yet are there virtues and natures, which require a grosser magnitude than colours, as well as scents and divers other require a more subtle; for as the portion of a body will give forth scent, which is too small to be seen, so the portion of a body will shew colours, which is too small to be enclosed with weight: and therefore one of the prophets with great elegance describing how all creatures carry no proportion towards God the creator, saith, *that all the nations in respect of him are like the dust upon the balance*; which is a thing appeareth, but weigheth not. But to return, there resteth a further freeing of this sixth direction; for the clearness of a river or stream sheweth white at a distance, and crystalline glasses deliver the face or any other object falsified in whiteness, and long beholding the snow, to a weak eye, giveth an impression of azure, rather than of whiteness. So as for whiteness in apparition only, and representation, by the qualifying of the light, altering the *intermedium*, or affecting the eye itself, it reacheth not. But you must free your direction to the producing of such an incidence, impression or operation, as may cause a precise and determinate passion of the eye, a matter which is much more easy to induce than that which we have past through; but yet because it hath a full coherence both with that act of radiation (which hath hitherto been conceived and termed so improperly and untruly, by some, an effluence of spiritual species, and by others, an investing of the *intermedium*, with a motion which successively is conveyed to the eye) and with the act of sense, wherein I should likewise open that which I think good to withdraw, I will omit.

Neither do I contend, but that this notion, which I call the freeing of a direction in the received philosophies, as far as a swarming anticipation could take hold, might be perceived and discerned; being not much other matter, than that



that which they did not only aim at in the two rules of axioms before remembered, but more nearly also than that which they term the form or formal cause, or that which they call the true difference; both which nevertheless, it seemeth, they propound rather as impossibilities and wishes, than as things within the compass of human comprehension: for Plato casteth his burden, and saith, *that he will receive him as a God, that can truly divide and define*; which cannot be but by true forms and differences, wherein I join hands with him, confessing as much, as yet assuming to myself little; for if any man can, by the strength of his anticipations, find out forms, I will magnify him with the foremost. But as any of them would say, that if divers things, which many men know by instruction and observation, another knew by revelation, and without those means, they would take him for somewhat supernatural and divine; so I do acknowledge, that if any man can by anticipations reach to that which a weak and inferior wit may attain to by interpretation, he cannot receive too high a title. Nay, I for my part do indeed admire to see how far some of them have proceeded by their anticipations; but how? it is as I wonder at some blind men to see what shift they make without their eyesight; thinking with myself that if I were blind I could hardly do it. Again, Aristotle's school confesseth, that there is no true knowledge but by causes, no true cause but the form, no true form known except one, which they are pleased to allow; and therefore thus far their evidence standeth with us, that both hitherto there hath been nothing but a shadow of knowledge, and that we propound now that which is agreed to be worthiest to be sought, and hardest to be found. There wanteth now a part very necessary, not by way of supply, but by way of caution: for as it is seen for the most part, that the outward tokens and badge of excellency and perfection are more incident to things merely counterfeit, than to that which is true, but for a meaner and baser sort; as a dubline is more like a perfect ruby than a spinel, and a counterfeit angel is made more like a true angel, than if it were an angel coined of China gold; in like manner, the direction carrieth a resemblance of a true direction in verity and liberty, which indeed is no direction at all. For though your direction seem to be certain and free, by pointing you to nature that is inseparable from the nature you enquire upon; yet if it do not carry you on a degree or remove nearer to action, operation or light, to make or produce, it is but superficial and counterfeit. Wherefore to secure and warrant what is a true direction, though that general note I have given be perspicuous in itself (for a man shall soon cast with himself whether he be ever the near to effect and operate or no, or whether he have won but an abstract or varied notion) yet for better instruction, I will deliver three particular notes of caution. The first is, that the nature discovered be more original than the nature supposed, and not more secondary, or of the like degree; as to make a stone bright, or to make it smooth, it is a good direction to say, make it even; but to make a stone even, it is no good direction to say, make it bright, or make it smooth: for the rule is, that the disposition of any thing referring to the state of it in itself, or the parts, is more original than that which is relative or transitive towards another thing. So evenness is the disposition of the stone in itself, but smooth is to the hand, and bright to the eye, and yet nevertheless they all cluster and concur; and yet the direction is more unperfect, if it do appoint you to such a relative, as is in the same kind, and not in a diverse. For in the direction, to produce brightness by smoothness, although properly it win no degree, and will never teach you any new particulars before unknown, yet by way of suggestion, or bringing to mind, it may draw your consideration to some particulars known but not remembered; as you shall sooner remember some practical means of making smoothness, than if you had fixed your consideration only upon brightness; but if the direction had been to make brightness, by making reflexion, as thus, make it such as you may see your face in it; this is merely secondary, and helpeth neither by way of informing, nor by way of suggesting. So if in the enquiry of whiteness you were directed to make such a colour as should be seen furthest in a dark light; here you are ad-



## OF THE INTERPRETATION

vanced nothing at all. For these kinds of natures are but proprieties, effects, circumstances, concurrences, or what else you will like to call them, and not radical and formative natures towards the nature supposed. The second caution is, that the nature inquired be collected by division before composition, or to speak more properly, by composition subaltern, before you ascend to composition absolute, etc.

*Of the internal and profound errors and superstitions in the nature of the mind, and of the four sorts of idols or fictions which offer themselves to the understanding in the inquiry of knowledge.*

Being the XVIth chapter, and this a small fragment thereof, being a preface to the inward elenches of the mind.

THE opinion of Epicurus, that the Gods were of human shape, was rather justly derided, than seriously confuted by the other sects, demanding whether every kind of sensible creatures did not think their own figure fairest, as the horse, the bull, and the like, which found no beauty but in their own forms, as in appetite of lust appeared. And the heresy of the Anthropomorphites was ever censured for a gross conceit, bred in the obscure cells of solitary monks that never looked abroad. Again, the fable so well known of *Quis pinxit leonem*, doth set forth well, that there is an error of pride and partiality, as well as of custom and familiarity. The reflexion also from glasses so usually resembled to the imagery of the mind, every man knoweth to receive error and variety both in colour, magnitude, and shape, according to the quality of the glass. But yet no use hath been made of these and many the like observations to move men to search out, and upon search to give true cautions of the native and inherent errors in the mind of man, which have coloured and corrupted all his notions and impressions.

I do find therefore in this enchanted glass four idols, or false appearances of several and distinct sorts, every sort comprehending many subdivisions: the first sort, I call idols of the nation or tribe; the second, idols of the palace; the third, idols of the cave; and the fourth, idols of the theatre, etc.

*Here followeth an abridgment of divers chapters of the first book of the INTERPRETATION OF NATURE.*

## C H A P. XII.

THAT in deciding and determining of the truth of knowledge, men have put themselves upon trials not competent. That antiquity and authority, common and confessed notions, the natural and yielding consent of the mind, the harmony and coherence of a knowledge in itself, the establishing of principles with the touch and reduction of other propositions unto them, inductions without instances contradictory, and the report of the senses, are none of them absolute and infallible evidence of truth; and bring no security sufficient for effects and operations. That the discovery of new works or active directions not known before, is the only trial to be accepted of; and yet not that neither, in case where one particular giveth light to another; but where particulars induce an axiom or observation, which axiom found out, discovereth and designeth new particulars. That the nature of this trial is not only upon the point, whether the knowledge be profitable or no, but even upon the point, whether the knowledge be true or no. Not because you may always conclude, that the axiom which discovereth new instances is true; but contrariwise you may safely conclude, that if it discover not any new instance, it is vain and untrue. That by new instances are not always to be understood new recipes, but new assignments; and of the diversity between these two. That the subtilty of words, arguments, notions,



notions, yea of the senses themselves, is but rude and gross in comparison of the subtilty of things. And of the slothful and flattering opinions of those which pretend to honour the mind of man in withdrawing and abstracting it from particulars; and of the inducements and motives whereupon such opinions have been conceived and received.

## C H A P. XIII.

OF the error in propounding chiefly the search of causes and productions of things concrete, which are infinite and transitory; and not of abstract natures, which are few and permanent. That these natures are as the alphabet or simple letters, whereof the variety of things consisteth; or as the colours mingled in the painter's shell, wherewith he is able to make infinite variety of faces or shapes. An enumeration of them according to popular note. That at the first one would conceive that in the schools by natural philosophy were meant the knowledge of the efficient of things concrete; and by metaphysick the knowledge of the forms of natures simple; which is a good and fit division of knowledge: but upon examination there is no such matter by them intended. That the little enquiry into the production of simple natures, sheweth well that works were not sought; because by the former knowledge some small and superficial deflexions from the ordinary generations and productions may be found out, but the discovery of all profound and radical alteration must arise out of the latter knowledge.

## C H A P. XIV.

OF the error in propounding the search of the materials, or dead beginnings or principles of things, and not the nature of motions, inclinations, and applications. That the whole scope of the former search is impertinent and vain; both because there are no such beginnings, and if there were they could not be known. That the latter manner of search (which is all) they pass over compendiously and slightly as a bye matter. That the several conceits in that kind; as that the lively and moving beginnings of things should be shift or appetite of matter to privation; the spirit of the world, working in matter according to platform; the proceeding or fructifying of distinct kinds according to their proprieties; the intercourse of the elements by mediation of their common qualities; the appetite of like portions to unite themselves; amity and discord, or sympathy and antipathy; motion to the centre, with motion of stripe or press; the casual agitation, aggregation, and essays of the solid portions in the void space; motion of shuttings and openings; are all mere nugations. And that the calculating and ordination of the true degrees, moments, limits and laws of motions and alterations (by means whereof all works and effects are produced) is a matter of a far other nature, than to consist in such easy and wild generalities.

## C H A P. XV.

OF the great error of inquiring knowledge in anticipations. That I call anticipations, the voluntary collections that the mind maketh of knowledge, which is every man's reason. That though this be a solemn thing, and serves the turn to negotiate between man and man (because of the conformity and participation of mens minds in the like errors) yet towards enquiry of the truth of things and works, it is of no value. That civil respects are a lett that this pretended reason should not be so contemptibly spoken of, as were fit and medicinal, in regard that hath been too much exalted and glorified, to the infinite detriment of man's estate. Of the nature of words, and their facility and aptness to cover and grace the defects of anticipations. That it is no marvel if these anticipations have brought forth such diversity and repugnance in opinions, theories or philosophies, as so many fable, of several arguments. That had not the nature of civil customs and government been in most times somewhat ad-  
verse



## OF THE INTERPRETATION

verte to such innovations, though contemplative, there might have been, and would have been many more. That the second school of the Academicks and the sect of Pyrrho, or the considerers, that denied comprehension as to the disabling of man's knowledge (entertained in anticipations) is well to be allowed: but that they ought, when they had overthrown and purged the floor of the ruins, to have sought to build better in place. And more especially that they did unjustly and prejudicially, to charge the deceit upon the report of the senses, which admitteth very sparing remedy; being indeed to have been charged upon the anticipations of the mind, which admitteth a perfect remedy. That the information of the senses is sufficient, not because they err not, but because the use of the sense in discovering of knowledge is for the most part not immediate. So that it is the work, effect, or instance, that trieth the axiom, and the sense doth but try the work done or not done, being or not being. That the mind of man in collecting knowledge needeth great variety of helps, as well as the hand of man in manual and mechanical practices needeth great variety of instruments. And that it were a poor work, that if instruments were removed, men would overcome with their naked hands. And of the distinct points of want and insufficiency in the mind of man.

## C H A P. XVI.

**T**HAT the mind of a man, as it is not a vessel of that content or receipt, to comprehend knowledge without helps and supplies; so again it is not sincere, but of an ill and corrupt tincture. Of the inherent and profound errors and superstitions in the nature of the mind, and of the four sorts of idols or false appearances that offer themselves to the understanding in the inquisition of knowledge; that is to say, the idols of the tribe, the idols of the palace, the idols of the cave, and the idols of the theatre: That these four, added to the incapacity of the mind, and the vanity and malignity of the affections, leave nothing but impotency and confusion. A recital of the particular kinds of these four idols, with some chosen examples of the opinions they have begot, such of them as have supplanted the state of knowledge most.

## C H A P. XVII.

**O**F the errors of such as have descended and applied themselves to experience, and attempted to induce knowledge upon particulars. That they have not had the resolution and strength of mind to free themselves wholly from anticipations, but have made a confusion and intermixture of anticipations and observations, and so vanished. That if any have had the strength of mind generally to purge away and discharge all anticipations; they have not had that greater and double strength and patience of mind, as well to repel new anticipations after the view and search of particulars, as to reject old which were in their mind before; but have from particulars and history flown up to principles without the mean degrees, and so framed all the middle generalities or axioms, not by way of scale or ascension from particulars, but by way of derivation from principles, whence hath issued the infinite chaos of shadows and moths, wherein both books and minds have been hitherto, and may be yet hereafter much more pestered. That in the course of those derivations to make them yet the more unprofitable, they have used, when any light of new instance opposite to any assertion appeared, rather to reconcile the instance, than to amend the rule. That if any have had, or shall have the power and resolution to fortify and inclose his mind against all anticipations, yet if he have not been or shall not be cautioned by the full understanding of the nature of the mind and spirit of man, and therein of the states, pores and passages both of knowledge and error, he hath not been nor shall not be possibly able to guide or keep on his course aright. That those that have been conversant in experience and observation, have used, when they have intended to discover the cause of any effect, to fix their consideration narrowly and exactly upon that effect itself, with all the cir-



circumstances thereof, and to vary the trial thereof as many ways as can be devised; which course amounteth but to a tedious curiosity, and ever breaketh off in wondering, and not in knowing. And that they have not used to enlarge their observation to match and sort that effect with instances of a diverse subject, which must of necessity be before any cause be found out. That they have passed over the observation of instances vulgar and ignoble, and stayed their attention chiefly upon instances of mark; whereas the other sort are for the most part more significant, and of better light and information. That every particular that worketh any effect, is a thing compounded (more or less) of diverse single natures (more manifest and more obscure) and that it appeareth not to whether of the natures the effect is to be ascribed; and yet notwithstanding they have taken a course without breaking particulars, and reducing them by exclusions and inclusions to a definite point, to conclude upon inductions in gross; which empirical course is no less vain than the scholastical. That all such as have sought action and work out of their enquiry, have been hasty and pressing to discover some practices for present use, and not to discover axioms, joining with them the new assignations as their sureties. That the forerunning of the mind to frame recipes upon axioms at the entrance, is like Atalanta's golden ball that hindereth and interrupteth the course; and is to be inhibited till you have ascended to a certain stage and degree of generalities; which forbearance will be liberally recompensed in the end: and that chance discovereth new inventions by one and one, but science by knots and clusters. That they have not collected sufficient quantity of particulars, nor them in sufficient certainty and subtilty, nor of all several kinds, nor with those advantages and discretions in the entry and sorting which are requisite; and of the weak manner of collecting natural history, which hath been used. Lastly, that they had no knowledge of the formulary of interpretation, the work whereof is to abridge experience, and to make things as certainly found out by axiom in short time, as by infinite experiences in ages.

## C H A P. XVIII.

THAT the cautions and devices put in practice in the delivery of knowledge for the covering and palliating of ignorance, and the gracing and overvaluing of that they utter, are without number; but none more bold and more hurtful than two: the one, that men have used of a few observations upon any subject to make a solemn and formal art; by filling it up with discourse, accommodating it with some circumstances and directions to practice, and digesting it into method, whereby men grow satisfied and secure, as if no more enquiry were to be made of that matter; the other, that men have used to discharge ignorance with credit, in defining all those effects which they cannot attain unto, to be out of the compass of art and human endeavour. That the very styles and forms of utterance are so many characters of imposture, some causing a style of pugnacity and contention, some of satire and reprehension, some of plausible and tempting similitudes and examples, some of great words and high discourse, some of short and dark sentences, some of exactness of method, all of positive affirmation; without disclosing the true motives and proofs of their opinions, or free confessing their ignorance or doubts, except it be now and then for a grace, and in cunning to win the more credit in the rest, and not in good faith. That although men be free from these errors and incumbrances in the will and affection, yet it is not a thing so easy as is conceived, to convey the conceit of one man's mind into the mind of another, without loss or mistaking, especially in notions new and differing from those that are received. That never any knowledge was delivered in the same order it was invented, no not in the mathematics, though it should seem otherwise, in regard that the propositions placed last do use the propositions or grants placed first for their proof and demonstration. That there are forms and methods of tradition wholly distinct and differing, according to their ends whereto they are directed. That there are two ends of tradition of knowledge, the one to teach and instruct



## OF THE INTERPRETATION

for use and practice, the other to impart or intimate for re-examination and progression. That the former of these ends requireth a method not the same, whereby it was invented and induced, but such as is most compendious and ready, whereby it may be used and applied. That the latter of the ends, which, is where a knowledge is delivered to be continued and spun on by a succession of labours, requireth a method whereby it may be transposed to another in the same manner as it was collected, to the end it may be discerned both where the work is weak, and where it breaketh off. That this latter method is not only unfit for the former end, but also impossible for all knowledge gathered and insinuated by anticipations, because the mind working inwardly of itself, no man can give a just account how he came to that knowledge which he hath received, and that therefore this method is peculiar for knowledge gathered by interpretation. That the discretion anciently observed, though by the precedent of many vain persons and deceivers disgraced, of publishing part and reserving part to a private succession, and of publishing in a manner whereby it shall not be to the capacity nor taste of all, but shall as it were single and adopt his reader, is not to be laid aside, both for the avoiding of abuse in the excluded, and the strengthening of affection in the admitted. That there are other virtues of tradition, as that there be no occasion given to error, and that it carry a vigour to root and spread against the vanity of wits and injuries of time; all which, if they were ever due to any knowledge delivered, or if they were never due to any human knowledge heretofore delivered, yet are now due to the knowledge propounded.

## C H A P. XIX.

OF the impediments which have been in the affections, the principal wherof hath been despair or diffidence, and the strong apprehension of the difficulty, obscurity, and infiniteness which belongeth to the invention of knowledge, and that men have not known their own strength; and that the supposed difficulties and vastness of the work is rather in shew and mutter, than in state or substance, where the true way is taken. That this diffidence hath moved and caused some never to enter into search, and others, when they have been entered, either to give over, or to seek a more compendious course than can stand with the nature of true search. That of those that have refused and prejudged enquiry, the more sober and grave sort of wits have depended upon authors and traditions, and the more vain and credulous resorted to revelation and intelligence with spirits and higher natures. That of those that have entered into search, some having fallen upon some conceits, which they after consider to be the same which they have found in former authors, have suddenly taken a persuasion that a man shall but (with much labour) incur and light upon the same inventions which he might with ease receive from others, and that it is but a vanity and self-pleasing of the wit to go about again, as one that would rather have a flower of his own gathering, than much better gathered to his hand. That the same humour of sloth and diffidence suggesteth, that a man shall but revive some ancient opinion which was long ago propounded, examined and rejected. And that it is easy to err in conceit, that a man's observation or notion is the same with a former opinion, both because new conceits must of necessity be uttered in old words, and because upon true and erroneous grounds men may meet in consequence or conclusion, as several lines or circles that cut in some one point. That the greatest part of those that have descended into search, have chosen for the most artificial and compendious course, to induce principles out of particulars, and to reduce all other propositions unto principles; and so instead of the nearest way, have been led to no way, or a meer labyrinth. That the two contemplative ways have some resemblance with the old parable of the two moral ways, the one beginning with uncertainty and difficulty, and ending in plainness and certainty; and the other beginning with shew of plainness and certainty, and ending in difficulty and uncertainty. Of the great and manifest error and untrue conceit or estimation of the infiniteness of particulars, whereas indeed



indeed all prolixity is in discourse and derivations; and of the infinite and most laborious expence of wit that hath been employed upon toys and matters of no fruit or value. That although the period of one age cannot advance men to the furthest point of interpretation of nature (except the work should be undertaken with greater helps than can be expected) yet it cannot fail in much less space of time to make return of many singular commodities towards the state and occasions of man's life. That there is less reason of distrust in the course of interpretation now propounded, than in any knowledge formerly delivered, because this course doth in sort equal mens wits, and leaveth no great advantage or pre-eminence to the perfect and excellent motions of the spirit. That to draw a straight line, or to make a circle perfect round by aim of hand only, there must be a great difference between an unsteady and unpractised hand, and a steady and practised; but to do it by rule or compass, it is much alike.

## C H A P. XXI.

**O**F the impediments which have been in the two extreme humours of admiration of antiquity and love of novelty, and again of ever-servile reverence, or over-light scorn of the opinions of others.

## C H A P. XXII.

**O**F the impediments which have been in the affection of pride, specially of one kind, which is the disdain of dwelling and being conversant much in experiences and particulars, especially such as are vulgar in occurrency, and base and ignoble in use. That besides certain higher mysteries of pride, generalities seem to have a dignity and solemnity, in that they do not put men in mind of their familiar actions, in that they have less affinity with arts mechanical and illiberal, in that they are not so subject to be controuled by persons of mean observation, in that they seem to teach men that they know not, and not to refer them to that they know. All which conditions directly feeding the humour of pride, particulars do want. That the majesty of generalities, and the divine nature of the mind in taking them (if they be truly collected, and be indeed the direct reflexions of things) cannot be too much magnified. And that it is true, that interpretation is the very natural and direct intention, action, and progression of the understanding, delivered from impediments. And that all anticipation is but a deflexion or declination by accident.

## C H A P. XXV.

**O**F the impediments which have been in the state of heathen religion, and other superstitions and errors of religion. And that in the true religion there hath not, nor is any impediment, except it be by accident or intermixture of humour. That a religion which consisteth in rites and forms of adoration, and not in confessions and beliefs, is adverse to knowledge, because men having liberty to enquire and discourse of theology at pleasure, it cometh to pass that all inquisition of nature endeth and limiteth itself in such metaphysical or theological discourse; whereas if mens wits be shut out of that port, it turneth them again to discover, and so to seek reason of reason more deeply. And that such was the religion of the heathen. That a religion that is jealous of the variety of learning, discourse, opinions, and sects (as misdoubting it may shake the foundations) or that cheriseth devotion upon simplicity and ignorance, as ascribing ordinary effects to the immediate working of God, is adverse to knowledge. That such is the religion of the Turk, and such hath been the abuse of Christian religion at some several times, and in some several factions. And of the singular advantage which the Christian religion hath towards the furtherance of true knowledge, in that it excludeth and interdicteth human reason, whether by interpretation or anticipation, from examining or discussing of the mysteries and principles of faith.

## C H A P.



OF the impediments which have been in the nature of society, and the policies of state. That there is no composition of estate or society, nor order or quality of persons, which have not some point of contrariety towards true knowledge. That monarchies incline wits to profit and pleasure, and commonwealths to glory and vanity. That universities incline wits to sophistry and affectation; cloisters to fables and unprofitable subtilty; study at large to variety; and that it is hard to say, whether mixture of contemplations with an active life, or retiring wholly to contemplations, do disable and hinder the mind more.





## FILVM LABYRINTHI,

SIVE

## FORMVLA INQVISITIONIS.

## A D FILIOS.

## P A R S P R I M A.

1. FRANCIS BACON thought in this manner. The knowledge whereof the world is now possessed, especially that of nature, extendeth not to magnitude and certainty of works. The physician pronounceth many diseases incurable, and saileth oft in the rest. The alchemists wax old and die in hopes. The magicians perform nothing that is permanent and profitable. The mechanicks take small light from natural philosophy, and do but spin on their own little thrids. Chance sometimes discovereth inventions, but that worketh not in years, but ages. So he saw well, that the inventions known are very unperfect, and that new are not like to be brought to light, but in great length of time, and that those which are, came not to light by philosophy.

2. He thought also this state of knowledge was the worse, because men strive (against themselves) to save the credit of ignorance, and to satisfy themselves in this poverty. For the physician, besides the cautes of practice, hath this general cautele of art, that he discharge the weakness of his art upon supposed impossibilities; neither can his art be condemned, when itself judgeth. That philosophy also, out of which the knowledge of physick which now is in use is hewed, receiveth certain positions and opinions, which (if they be well weighed) induce this persuasion, that no great works are to be expected from art, and the hand of man; as in particular, that opinion, that *the heat of the sun and fire differ in kind*; and that other, that *composition is the work of man, and mixture is the work of nature*, and the like; all tending to the circumscription of man's power, and to artificial despair; killing in men, not only the comfort of imagination, but the industry of trial: only upon vain-glory, to have their art thought perfect, and that all is impossible, that is not already found. The alchemist discharge his art upon his own errors, either supposing a misunderstanding of the words of his authors, which maketh him listen after auricular traditions; or else a failing in the true proportions and scruples of practice, which maketh him renew infinitely his trials; and finding also that he lighteth upon some mean experiments, and conclusions by the way, feedeth upon them, and magnifieth them to the most, and supplieth the rest in hopes. The magician, when he findeth something (as he conceiveth) above nature, effected; thinketh, when a breach is once made in nature, that it is all one, to perform great things and small; not seeing, that they are but subjects of a certain kind, wherein magick and superstition hath played in all times. The mechanical person, if he can refine an invention, or put two or three observations or practices together in one, or couple things better with their use, or make the work in less or greater volume, taketh himself for an inventor. So he saw well, that men either persuade themselves of new inventions as of impossibilities; or else think they are already extant, but in secret and in few hands; or that they account of those little industries and additions, as of inventions: all which turneth to the averting of their minds from any just and constant labour, to invent further in any quantity.

3. He thought also, when men did set before themselves the variety and perfection of works produced by mechanical arts, they are apt rather to admire the



provisions of man, than to apprehend his wants; not considering, that the original inventions, and conclusions of nature, which are the life of all that variety, are not many, nor deeply fetched; and that the rest is but the subtle and ruled motion of the instrument and hand; and that the shop therein is not unlike the library, which in such number of books containeth (for the far greater part) nothing but iterations, varied sometimes in form, but not new in substance. So he saw plainly, that opinion of store was a cause of want; and that both works and doctrines appear many, and are few.

4. He thought also, that knowledge is uttered to men in a form, as if every thing were finished; for it is reduced into arts and methods; which in their divisions do seem to include all that may be. And how weakly soever the parts are filled, yet they carry the shew and reason of a total; and thereby the writings of some received authors go for the very art: whereas antiquity used to deliver the knowledge which the mind of man had gathered, in observations, aphorisms, or short and dispersed sentences, or small tracts of some parts that they had diligently meditated and laboured; which did invite men, both to ponder that which was invented, and to add and supply further. But now, sciences are delivered as to be believed and accepted, and not to be examined and further discovered; and the succession is between master and disciple, and not between inventor and continuor or advancer; and therefore sciences stand at a stay, and have done for many ages, and that which is positive is fixed, and that which is question is kept question, so as the columns of no further proceeding are pitched. And therefore he saw plainly, men had cut themselves off from further invention; and that it is no marvel, that that is not obtained which hath not been attempted, but rather shut out and debarred.

5. He thought also, that knowledge is almost generally sought either for delight and satisfaction, or for gain or profession, or for credit and ornament, and that every of these are as Atalanta's balls, which hinder the race of invention. For men are so far in these courses from seeking to increase the mass of knowledge, as of that mass which is they will take no more than will serve their turn: and if any one amongst so many seeketh knowledge for itself, yet he rather seeketh to know the variety of things, than to discern of the truth and causes of them; and if his inquisition be yet more severe, yet it tendeth rather to judgment than to invention; and rather to discover truth in controversy, than new matter; and if his heart be so large as he propoundeth to himself further discovery or invention, yet it is rather of new discourse and speculation of causes, than of effects and operations. And as for those that have so much in their mouths, action and use and practice, and the referring of sciences thereunto; they mean it of application of that which is known, and not of a discovery of that which is unknown. So he saw plainly, that this mark, namely, invention of further means to indow the condition and life of man with new powers or works, was almost never yet set up and resolved in man's intention and enquiry.

6. He thought also, that amongst other knowledges, natural philosophy hath been the least followed and laboured. For since the christian faith, the greatest number of wits have been employed, and the greatest helps and rewards have been converted upon divinity. And before-time likewise, the greatest part of the studies of philosophers was consumed in moral philosophy, which was as the heathen divinity. And in both times a great part of the best wits betook themselves to law, pleadings, and causes of estate; specially in the time of the greatness of the Romans, who by reason of their large empire, needed the service of all their able men for civil business. And the time amongst the Grecians, in which natural philosophy seemed most to flourish, was but a short space; and that also rather abused in differing sects and conflicts of opinions, than profitably spent. Since which time, natural philosophy was never any profession, nor never possessed any whole man, except perchance some monk in a cloyster, or some gentleman in the country, and that very rarely; but became a science of passage, to season a little young and unripe wit, and to serve for an introduction to other arts, especially physick and the practical mathematicks. So as he saw plainly, that natural philosophy hath been intended by few persons, and in them  
hath



hath occupied the least part of their time; and that in the weakest of their age and judgment.

7. He thought also, how great opposition and prejudice natural philosophy had received by superstition, and the immoderate and blind zeal of religion; for he found that some of the Gracians, which first gave the reason of thunder, had been condemned of impiety; and that the cosmographers, which first discovered and described the roundness of the earth, and the consequence thereof touching the Antipodes, were not much otherwise censured by the ancient fathers of the Christian church; and that the case is now much worse, in regard of the boldness of the schoolmen and their dependances in the monasteries, who having made divinity into an art, have almost incorporated the contentious philosophy of Aristotle into the body of Christian religion; and generally he perceived in men of devout simplicity this opinion, that the secrets of nature were the secrets of God; and part of that glory whereinto the mind of man if it seek to press, shall be oppressed; and that the desire in men to attain to so great and hidden knowledge, hath a resemblance with that temptation which caused the original fall; and on the other side, in men of a devout policy, he noted an inclination to have the people depend upon God the more, when they are less acquainted with second causes; and to have no stirring in philosophy, lest it may led to an innovation in divinity, or else should discover matter of further contradiction to divinity. But in this part, resorting to the authority of the Scriptures, and holy examples, and to reason, he rested not satisfied alone, but much confirmed. For first, he considered that the knowledge of nature, by the light whereof man discerned of every living creature, and imposed names according to their propriety, was not the occasion of the fall; but the moral knowledge of good and evil, affected to the end to depend no more upon God's commandments, but for man to direct himself. Neither could he find in any Scripture, that the inquiry and science of man in anything, under the mysteries of the Deity, is determined and restrained, but contrariwise allowed and provoked. For concerning all other knowledge the Scripture pronounceth, *That it is the glory of God to conceal, but it is the glory of man (or of the king, for the king is but the excellency of man) to invent; and again, The spirit of man is as the lamp of God, wherewith he searcheth every secret; and again most effectually, That God hath made all things beautiful and decent, according to the return of their seasons; also that he hath set the world in man's heart, and yet man cannot find out the work which God worketh from the beginning to the end:* shewing that the heart of man is a continent of that concave or capacity, wherein the content of the world (that is, all forms of the creatures, and whatsoever is not God) may be placed, or received; and complaining, that through the variety of things, and vicissitudes of times (which are but impediments and not impossibilities) man cannot accomplish his invention. In precedent also he set before his eyes, that in those few memorials before the flood, the Scripture honoureth the name of the inventors of musick and works in metal; that Moses had this addition of praise, that he was seen in all the learning of the Egyptians; that Solomon, in his grant of wisdom from God, had contained as a branch thereof that knowledge, whereby he wrote a natural history of all verdure, from the cedar to the moss, and of all that breatheth; that the book of Job, and many places of the prophets, have great ascription of natural philosophy; that the church in the bosom and lap thereof, in the greatest injuries of times, ever preserved (as holy reliques) the books of philosophy and all heathen learning; and that when Gregory the bishop of Rome became adverse and unjust to the memory of heathen antiquity, it was censured for pusillanimity in him, and the honour thereof soon after restored, and his own memory almost persecuted by his successor Sabinian; and lastly, in our times, and the ages of our fathers, when Luther and the divines of the protestant church on the one side, and the Jesuits on the other, have enterprized to reform, the one the doctrine, the other the discipline and manners of the church of Rome, he saw well how both of them have awaked to their great honour and succour all human learning. And for reason, there cannot be a greater and more evident than this, that all knowledge, and specially that of natural philosophy, tendeth highly to the magnifying of the glory of God in his power,



power, providence and benefits, appearing and engraven in his works, which without this knowledge are beheld but as through a veil: for if the heavens in the body of them do declare the glory of God to the eye, much more do they in the rule and decrees of them declare it to the understanding. And another reason, not inferior to this, is, that the same natural philosophy principally amongst all other human knowledge, doth give an excellent defence against both extremes of religion, superstition and infidelity; for both it freeth the mind from a number of weak fancies and imaginations, and it raiseth the mind to acknowledge that to God all things are possible: for to that purpose speaketh our Saviour in that first canon against heresies, delivered upon the case of the resurrection, *You err, not knowing the Scriptures, nor the power of God*; teaching, that there are but two fountains of heresy, not knowing the will of God revealed in the Scriptures, and not knowing the power of God revealed or at least made most sensible in his creatures. So as he saw well, that natural philosophy was of excellent use to the exaltation of the Divine Majesty; and, that which is admirable, that being a remedy of superstition, it is nevertheless an help to faith. He saw likewise, that the former opinions to the prejudice hereof, had no true ground; but must spring either out of mere ignorance, or out of an access of devotion, to have divinity all in all, whereas it should be only above all (both which states of mind may be best pardoned;) or else out of worse causes, namely out of envy, which is proud weakness, and deserveth to be despised; or out of some mixture of imposture, to tell a lye for God's cause; or out of an impious diffidence, as if men should fear to discover some things in nature, which might subvert faith. But still he saw well, howsoever these opinions are in right reason reproved, yet they leave not to be most effectual hindrances to natural philosophy and invention.

8. He thought also, that there wanted not great contrariety to the further discovery of sciences in regard of the orders and customs of universities, and also in regard of common opinion. For in universities and colleges mens studies are almost confined to certain authors, from which if any dissenteth or propoundeth matter of redargution, it is enough to make him thought a person turbulent; whereas if it be well advised, there is a great difference to be made between matters contemplative and active. For in government change is suspected, though to the better; but it is natural to arts to be in perpetual agitation and growth. Neither is the danger alike of new light, and of new motion, or remove; and for vulgar and received opinions, nothing is more usual, or more usually complained of, than that it is imposed for arrogancy and presumption, for men to authorize themselves against antiquity and authors, towards whom envy is ceased, and reverence by time amortised; it not being considered what Aristotle himself did (upon whom the philosophy that now is chiefly dependeth) who came with a professed contradiction to all the world, and did put all his opinions upon his own authority and argument, and never so much as nameth an author, but to confute and reprove him; and yet his success well fulfilled the observation of him that said, *If a man come in his own name, him will you receive*. Men think likewise, that if they should give themselves to the liberty of invention and travail of enquiry, that they shall light again upon some conceits and contemplations which have been formerly offered to the world, and have been put down by better, which have prevailed and brought them to oblivion; not seeing that howsoever the property and breeding of knowledges is in great and excellent wits, yet the estimation and price of them is in the multitude, or in the inclinations of princes and great persons meanly learned. So as those knowledges are like to be received and honoured, which have their foundation in the subtilty or finest trial of common sense, or such as fill the imagination, and not such knowledge as is digged out of the hard mine of history and experience, and falleth out to be in some points as adverse to common sense, or popular reason, as religion, or more. Which kind of knowledge, except it be delivered with strange advantages of eloquence and power, may be likely to appear and disclose a little to the world, and straight to vanish and shut again. So that time seemeth to be of the nature of a river or flood, that bringeth down to us that which is light and blown up, and sinketh and drowneth that which is solid and grave. So he saw well that both



in the state of religion, and in the administration of learning, and in common opinion, there were many and continual stops, and traverses to the course of invention.

9. He thought also, that the invention of works and further possibility was prejudiced in a more special manner than that of speculative truth; for besides the impediments common to both, it hath by itself been notably hurt and discredited by the vain promises and pretences of alchemy, magick, astrology, and such other arts, which (as they now pass) hold much more of imagination and belief, than of sense and demonstration. But to use the poet's language, men ought to have remembered, that although Ixion of a cloud in the likeness of Juno begat Centaurs and Chimeras, yet Jupiter also of the true Juno begat Vulcan and Hebe. Neither is it just to deny credit to the greatness of the acts of Alexander, because the like or more strange have been feigned of an Amadis or an Arthur, or other fabulous worthies. But though this in true reason should be, and that men ought not to make a confusion of unbelief; yet he saw well, it could not otherwise be in event, but that experience of untruth had made access to truth more difficult, and that the ignominy of vanity had abated all greatness of mind.

10. He thought also, there was found in the mind of man an affection naturally bred and fortified, and furthered by discourse and doctrine, which did pervert the true proceeding towards active and operative knowledge. This was a false estimation, that it should be as a diminution to the mind of man to be much conversant in experiences and particulars, subject to sense and bound in matter, and which are laborious to search, ignoble to meditate, harsh to deliver, illiberal to practise, infinite as is supposed in number, and no ways accommodate to the glory of arts. This opinion or state of mind received much credit and strength by the school of Plato, who thinking that particulars rather revived the notions, or excited the faculties of the mind, than merely informed; and having mingled his philosophy with superstition, which never favoureth the sense, extolleth too much the understanding of man in the inward light thereof. And again, Aristotle's school, which giveth the dew to the sense in assertion, denieth it in practise much more than that of Plato. For we see the schoolmen, Aristotle's successors, which were utterly ignorant of history, rested only upon agitation of wit; whereas Plato giveth good example of inquiry by induction and view of particulars; though in such a wandering manner as is of no force or fruit. So that he saw well, that the supposition of the sufficiency of man's mind, hath lost the means thereof.



# SEQUELA CHARTARVM;

SIVE,

## INQUISITIO LEGITIMA

DE

## CALORE et FRIGORE.

### SECTIO ORDINIS.

*Charta suggestionis, sive memoria fixa.*

**T**HE sun-beams hot to sense.

The moon-beams not hot; but rather conceived to have a quality of cold, for that the greatest colds are noted to be about the full, and the greatest heats about the change. *Qu.*

The beams of the stars have no sensible heat by themselves; but are conceived to have an augmentative heat of the sun-beams by the instance following. The same climate arctic and antarctic are observed to differ in cold, viz. that the antarctic is the more cold, and it is manifest the antarctic hemisphere is thinner planted of stars.

The heats observed to be greater in July than in June; at which time the sun is nearest the greatest fixed stars, viz. *Cor Leonis, Cauda Leonis, Spica Virginis, Syrius, Canicula.*

The conjunction of any two of the three highest planets noted to cause great heats.

Comets conceived by some to be as well causes as effects of heat, much more the stars.

The sun-beams have greater heat when they are more perpendicular, than when they are more oblique; as appeareth in difference of regions, and the difference of the times of summer and winter in the same region; and chiefly in the difference of the hours of mid-day, mornings, evenings in the same day.

The heats more extreme in July and August than in May or June, commonly imputed to the stay and continuance of heat.

The heats more extreme under the tropicks than under the line: commonly imputed to the stay and continuance of heat, because the sun there doth as it were double a cape.

The heats more about three or four of clock than at noon; commonly imputed to the stay and continuance of heat.

The sun noted to be hotter when it shineth forth between clouds, than when the sky is open and serene.

The middle region of the air hath manifest effects of cold, notwithstanding locally it be nearer the sun, commonly imputed to antiperistasis, assuming that the beams of the sun are hot either by approach or by reflexion, and that coldest in the middle term between both; or if, as some conceive, it be only by reflexion, then the cold of that region resteth chiefly upon distance. The instances shewing the cold of that region, are the snows which descend, the hails which descend, and the snows and extreme colds which are upon high mountains.

But *Qu.* of such mountains as adjoin to sandy vales, and not to fruitful vales, which minister no vapours; or of mountains above the region of vapours, as is reported



reported of Olympus, where any inscription upon the ashes of the altar remained untouched of wind or dew. And note, it is also reported, that men carry up sponges with vinegar to thicken their breath, the air growing too fine for respiration, which seemeth not to stand with coldness.

The clouds make a mitigation of the heat of the sun. So doth the interposition of any body which we term shades; but yet the nights in summer are many times as hot to the feeling of mens bodies as the days are within doors, where the beams of the sun actually beat not.

There is no other nature of heat known from the celestial bodies or from the air, but that which cometh by the sun-beams. For in the countries near the pole, we see the extreme colds end in the summer months, as in the voyage of Nova Zembla, where they could not disengage their barks from the ice, no not in July, and met with great mountains of ice, some floating, some fixed, at that time of the year, being the heat of summer.

The caves under the earth noted to be warmer in winter than in summer, and so the waters that spring from within the earth.

Great quantity of sulphur, and sometimes naturally burning after the manner of *Ætna*, in Iceland; the like written of Groenland, and divers other the cold countries\*.

The trees in the cold countries are such as are fuller of rosin, pitch, tar, which are matters apt for fire, and the woods themselves more combustible than those in much hotter countries; as for example, fir, pine-apple, juniper: *¶* whether their trees of the same kind that ours are, as oak and ash, bear not, in the more cold countries, a wood more brittle and ready to take fire than the same kinds with us?

The sun-beams heat manifestly by reflexion, as in countries pent in with hills, upon walls or buildings, upon pavements, upon gravel more than earth, upon *arable more* than grass, upon rivers if they be not very open, *etc.*

The uniting or collection of the sun-beams multiplieth heat, as in burning-glasses, which are made thinner in the middle than on the sides (as I take it, contrary to spectacles) and the operation of them is, as I remember, first to place them between the sun and the body to be fired, and then to draw them upward towards the sun, which it is true maketh the angle of the cone sharper. But then I take it if the glass had been first placed at the same distance, to which it is after drawn, it would not have had that force, and yet that had been all one to the sharpness of the angle. *¶*

So in that the sun's beams are hotter perpendicularly than obliquely, it may be imputed to the union of the beams, which in case of perpendicularly reflect into the very same lines with the direct, and the further from perpendicularly the more obtuse the angle, and the greater distance between the direct beam and the reflected beam.

The sun-beams raise vapours out of the earth, and when they withdraw they fall back in dews.

The sun-beams do many times scatter the mists which are in the mornings.

The sun-beams cause the divers returns of the herbs, plants, and fruits of the earth; for we see in lemon-trees and the like, that there is coming on at once fruit ripe, fruit unripe, and blossoms; which may shew that the plant worketh to put forth continually, were it not for the variations of the accesses and recesses of the sun, which call forth, and put back.

The excessive heat of the sun doth wither and destroy vegetables, as well as the cold doth nip and blast them.

The heat or beams of the sun doth take away the smell of flowers, specially such as are of a milder odour.

The beams of the sun do disclose summer flowers, as the pimpernel, marigold, and almost all flowers else, for they close commonly morning and evening, or in over-cast weather, and open in the brightness of the sun; which is but imputed to dryness and moisture, which doth make the beams heavy or erect; and not to

\* No doubt but infinite power of the heat of the sun in cold countries, though it be not to the analogy of men, and fruits, *etc.*



## DE CALORE ET FRIGORE.

any other propriety in the sun-beams: so they report not only a closing, but a bending or inclining in the *heliotropium* and *calendula*. *Qu.*

The sun-beams do ripe all fruits, and addeth to them a sweetness or faintness; and yet some sultry hot days overcast, are noted to ripen more than bright days.

The sun-beams are thought to mend distilled waters, the glasses being well stopped, and to make them more vertuous and fragrant.

The sun-beams do turn wine into vinegar; but *Qu.* whether they would not sweeten verjuice.

The sun-beams doth pall any wine or beer that is set in them.

The sun-beams do take away the lustre of any silks or arras.

There is almost no mine, but lieth some depth in the earth; gold is conceived to lie highest and in the hottest countries; yet Thracia and Hungary are cold, and the hills of Scotland have yielded gold, but in small grains or quantity.

If you set a root of a tree too deep in the ground, that root will perish, and the stock will put forth a new root nearer the superficies of the earth.

Some trees and plants prosper best in the shade; as the bayes, strawberries, some wood-flowers.

Almost all flies love the sun-beams, so do snakes; toads and worms contrary.

The sun-beams tanneth the skin of man; and in some places turneth it to black.

The sun-beams are hardly indured by many, but cause head-ach, faintness, and with many they cause rheums; yet to aged men they are comfortable.

The sun causes pestilence, which with us rage about autumn; but it is reported, in Barbary they break up about June, and rage most in the winter.

The heat of the sun, and of fire, and living creatures, agree in some things which pertain to vivification; as the back of a chimney will set forward an apricot-tree as well as the sun; the fire will raise a dead butterfly as well as the sun; and so will the heat of a living creature. The heat of the sun in sand will hatch an egg. *Qu.*

The heat of the sun in the hottest countries nothing so violent as that of fire, no not scarcely so hot to the sense as that of a living creature.

The sun, a fountain of light as well as heat. The other celestial bodies manifest in light, and yet *non constet* whether all borrowed, as in the moon; but obscure in heat.

The southern and western wind with us is the warmest, whereof the one bloweth from the sun, the other from the sea; the northern and eastern the more cold. *Qu.* whether in the coast of Florida, or at Brasil, the east wind be not the warmest, and the west the coldest; and so beyond the antarctick tropick, the southern wind the coldest.

The air useth to be extreme hot before thunders.

The sea and air ambient, appeareth to be hotter than that at land; for in the northern voyages two or three degrees farther at the open sea, they find less ice than two or three degrees more south near land: but *Qu.* for that may be by reason of the shores and shallows.

The snows dissolve fastest upon the sea-coasts, yet the winds are counted the bitterest from the sea, and such as trees will bend from. *Qu.*

The streams or clouds of brightness which appear in the firmament, being such through which the stars may be seen, and shoot not, but rest, are signs of heat.

The pillars of light, which are so upright, and do commonly shoot and vary, are signs of cold; but both these are signs of drowth.

The air when it is moved is to the sense colder; as in winds, fannings, *ventilabra*.

The air in things fibrous, as fleeces, furs, *etc.* warm; and those stuffs to the feeling warm.

The water to man's body seemeth colder than the air; and so in summer, in swimming it seemeth at the first going in; and yet after one hath been in a while, at the coming forth again, the air seemeth colder than the water.

The snow more cold to the sense than water, and the ice than snow; and they



they have in Italy means to keep snow and ice for the cooling of their drinks; *2y.* whether it be so in froth in respect of the liquor.

Baths of hot water feel hottest at the first going in.

The frost dew which we see in hoar frost, and in the rymes upon trees or the like, accounted more mortifying cold than snow; for snow cherisheth the ground, and any thing sowed in it; the other biteth and killeth.

Stone and metal exceeding cold to the feeling more than wood: yea more than jett or amber, or horn, which are no less smooth.

The snow is ever in the winter season, but the hail, which is more of the nature of ice, is ever in the summer season; whereupon it is conceived, that as the hollows of the earth are warmest in the winter, so that region of the air is coldest in the summer; as if they were a fugue of the nature of either from the contrary, and a collecting itself to an union, and so to a further strength.

So in the shades under trees, in the summer, which stand in an open field, the shade noted to be colder than in a wood.

Cold effecteth congelation in liquors, so as they do consist and hold together, which before did run.

Cold breaketh glasses, if they be close stopped, in frost, when the liquor freeze-eth within.

Cold in extreme maketh metals, that are dry and brittle, cleft and crack, *Aerque dissilunt*; so of pots of earth and glass.

Cold maketh bones of living creatures more fragile.

Cold maketh living creatures to swell in the joints, and the blood to clot, and turn more blue.

Bitter frosts do make all drinks to taste more dead and flat.

Cold maketh the arteries and flesh more asper and rough.

Cold causes rheums and distillations by compressing the brain, and laxes by like reason.

Cold increases appetite in the stomach, and willingness to stir.

Cold maketh the fire to scald and sparkle.

Paracelsus reporteth, that if a glass of wine be set upon a terras in a bitter frost, it will leave some liquor unfrozen in the center of the glass, which ex-celleth *Spiritus vini* drawn by fire.

Cold in Muscovy, and the like countries, causes those parts which are voidest of blood, as the nose, the ears, the toes, the fingers, to mortify and rot; especially if you come suddenly to fire, after you have been in the air abroad, they are sure to moulder and dissolve. They use for remedy, as is said, washing in snow water.

If a man come out of a bitter cold suddenly to the fire, he is ready to swoon, or overcome.

So contrariwise at Nova Zembla, when they opened their door at times to go forth, he that opened the door was in danger to be overcome.

The quantity of fish in the cold countries, Norway, *etc.* very abundant.

The quantity of fowl and eggs laid in the cliffs in great abundance.

In Nova Zembla they found no beast but bears and foxes, whereof the bears gave over to be seen about September, and the foxes began.

Meat will keep from putrefying longer in frosty weather, than at other times.

In Iceland they keep fish, by exposing it to the cold, from putrefying without salt.

The nature of man endureth the colds in the countries of Scrichinnia, Biarmia, Lappia, Iceland, Greenland; and that not by perpetual keeping in in stoves in the winter time, as they do in Russia; but contrariwise, their chief fairs and intercourse is written to be in the winter, because the ice evens and levelleth the passages of waters, plashes, *etc.*

A thaw after a frost doth greatly rot and mellow the ground.

Extreme cold hurteth the eyes, and causeth blindness in many beasts, as is reported.

The cold maketh any solid substance, as wood, stone, metal, put to the flesh, to cleave to it, and to pull the flesh after it, and so put to any cloth that is moist.



## DE CALORE ET FRIGORE.

Cold maketh the pilage of beasts more thick and long, as foxes of Muscovy, fabels, *etc.*

Cold maketh the pilage of most beasts incline to grayness or whiteness, as foxes, bears; and so the plumage of fowls; and maketh also the crests of cocks and their feet white, as is reported.

Extreme cold will make nails leap out of the walls, and out of locks, and the like.

Extreme cold maketh leather to be stiff like horn.

In frosty weather the stars appear clearest and most sparkling.

In the change from frost to open weather, or from open weather to frosts, commonly great mists.

In extreme colds any thing never so little which arresteth the air maketh it to congeal; as we see in cobwebs in windows, which is one of the least and weakest threads that is, and yet drops gather about it like chains of pearl.

So in frosts, the inside of glass windows gathereth a dew; *Quæ.* if not more without.

*Quæ.* Whether the sweating of marble and stones be in frost, or towards rain.

Oil in time of frost gathereth to a substance, as of tallow: and it is said to sparkle some time, so as it giveth a light in the dark.

The countries which lie covered with snow, have a hastier maturation of all grain than in other countries, all being within three months, or thereabouts.

*Quæ.* It is said, that compositions of honey, as mead, do ripen, and are most pleasant in the great colds.

The frosts with us are casual, and not tyed to any months, so as they are not merely caused by the recess of the sun, but mixed with some inferior causes. In the inland of the northern countries, as in Russia, the weather for the three or four months of November, December, January, February, is constant, *viz.* clear and perpetual frost, without snows or rains.

There is nothing in our region, which, by approach of a matter hot, will not take heat by transiſion or excitation.

There is nothing hot here with us, but is in a kind of consumption, if it carry heat in itself; for all fired things are ready to consume; chafed things are ready to fire; and the heat of mens bodies needeth aliment to restore.

The transiſion of heat is without any imparting of substance, and yet remaineth after the body heated is withdrawn; for it is not like smells, for they leave some airs or parts; not like light, for that abideth not when the first body is removed; not unlike to the motion of the loadstone, which is lent without adhesion of substance, for if the iron be filed where it was rubbed, yet it will draw or turn.





# PHYSIOLOGICAL REMAINS.

## *Inquiries touching the compounding of metals.*

**T**O make proof of the incorporation of iron with flint, or other stone: For if it can be incorporated without over-great charge, or other incommodity, the cheapness of the flint or stone, doth make the compound stuff profitable for divers uses. The doubts may be three in number.

First, whether they will incorporate at all, otherwise than to a body that will not hold well together, but become brittle and uneven?

Secondly, Although it should incorporate well, yet whether the stuff will not be so stubborn as it will not work well with a hammer, whereby the charge in working will overthrow the cheapness of the material?

Thirdly, Whether they will incorporate, except the iron and stone be first calcined into powder? And if not, whether the charge of the calcination will not eat out the cheapness of the material?

The uses are most probable to be; first for the implements of the kitchen; as spits, ranges, cobirons, pots, *etc.* then for the wars, as ordnance, portculises, grates, chains, *etc.*

Note; the finer works of iron are not so probable to be served with such a stuff; as locks, clocks, small chains, *etc.* because the stuff is not like to be tough enough.

For the better use, in comparison of iron, it is like the stuff will be far lighter; for the weight of iron to flint is double and a third part; and, secondly, it is like to rust not so easily, but to be more clean.

The ways of trial are two: first, by the iron and stone of themselves, wherein it must be enquired, what are the stones that do easiest melt. Secondly, with an additament, wherein brimstone is approved to help to the melting of iron or steel. But then it must be considered, whether the charge of the additament will not destroy the profit.

It must be known also, what proportion of the stone the iron will receive to incorporate well with it, and that with once melting; for if either the proportion be too small, or that it cannot be received but piece-meal by several melings, the work cannot be of value.

To make proof of the incorporating of iron and brass. For the cheapness of the iron in comparison of the brass, if the uses may be served, doth promise profit. The doubt will be, touching their incorporating; for that it is approved, that iron will not incorporate, neither with brass, nor other metals, of itself, by simple fire: so as the enquiry must be upon the calcination, and the additament, and the charge of them.

The uses will be for such things as are now made of brass, and might be as well served by the compound stuff; wherein the doubts will be chiefly of the toughness, and of the beauty.

First, therefore, if brass ordnance could be made of the compound stuff, in respect of the cheapness of the iron, it would be of great use.

The vantage which brass ordnance hath over iron, is chiefly, as I suppose, because it will hold the blow, though it be driven far thinner than the iron can be; whereby it saveth both in the quantity of the material, and in the charge and commodity of mounting and carriage, in regard, by reason of the thinness, it beareth much less weight: there may be also somewhat in being not so easily over-heated.

Secondly, for the beauty. Those things wherein the beauty or lustre are esteemed,



esteemed, are, andirons, and all manner of images, and statues, and columns, and tombs, and the like. So as the doubt will be double for the beauty; the one, whether the colour will please so well, because it will not be so like gold as brass? The other, whether it will polish so well? Wherein for the latter it is probable it will; for steel glosses are more resplendent than the like plates of brass would be; and so is the glittering of a blade. And besides, I take it, andiron brass, which they call white brass, hath some mixture of tin to help the lustre. And for the golden colour, it may be by some small mixture of orpiment, such as they use to brass in the yellow alchemy; it will easily recover that which the iron loseth. Of this the eye must be the judge upon proof made.

But now for pans, pots, cusews, counters, and the like, the beauty will not be so much respected, so as the compound stuff is like to pass.

For the better use of the compound stuff, it will be sweeter and cleaner than brass alone, which yieldeth a smell or soilness; and therefore may be better for the vessels of the kitchen and brewing. It will also be harder than brass, where hardness may be required.

For the trial, the doubts will be two: first, the over-weight of brass towards iron, which will make iron float on the top in the melting. This perhaps will be holpen with the calaminar stone, which consenteth so well with brass, and, as I take it, is lighter than iron. The other doubt will be, the stiffness and dryness of iron to melt; which must be holpen either by moistening the iron, or opening it. For the first, perhaps some mixture of lead will help. Which is as much more liquid than brass, as iron is less liquid. The opening may be holpen by some mixture of sulphur: so as the trials would be with brass, iron, calaminar stone and sulphur; and then again with the same composition, and an addition of some lead; and in all this the charge must be considered, whether it eat not out the profit of the cheapness of iron?

There be two proofs to be made of incorporation of metals for magnificence and delicacy. The one for the eye, and the other for the ear. Statue-metal, and bell-metal, and trumpet-metal, and string-metal; in all these, though the mixture of brass or copper should be dearer than the brass itself, yet the pleasure will advance the price to profit.

First therefore for statue-metal, see Pliny's mixtures, which are almost forgotten, and consider the charge.

Try likewise the mixture of tin in large proportion with copper, and observe the colour and beauty, it being polished. But chiefly let proof be made of the incorporating of copper or brass with glass-metal, for that is cheap, and is like to add a great glory and shining.

For bell-metal. First, it is to be known what is the composition which is now in use. Secondly, it is probable that it is the dryness of the metal that doth help the clearness of the sound, and the moistness that dulseth it: and therefore the mixtures that are probable, are steel, tin, glass-metal.

For string-metal, or trumpet-metal, it is the same reason; save that glass-metal may not be used, because it will make it too brittle; and trial may be made with mixture of silver, it being but a delicacy, with iron or brass.

To make proof of the incorporation of silver and tin in equal quantity, or with two parts silver, and one part tin, and to observe whether it be of equal beauty and lustre with pure silver; and also whether it yield no soilness more than silver? And again, whether it will endure the ordinary fire which belongeth to chafing-dishes, posnets, and such other silver vessels? And if it do not endure the fire, yet whether by some mixture of iron it may not be made more fixt? For if it be in beauty, and all the uses aforesaid, equal to silver, it were a thing of singular profit to the state, and to all particular persons, to change silver plate or vessel into the compound stuff, being a kind of silver electre, and to turn the rest into coin. It may be also questioned, whether the compound stuff will receive gilding as well as silver, and with equal lustre? It is to be noted, that the common alloy of silver coin is brass, which doth discolour more, and is not so neat as tin.

The



The drownings of metals within other metals, in such sort as they can never rise again, is a thing of great profit. For if a quantity of silver can be so buried in gold, as it will never be reduced again, neither by fire, nor parting waters, nor otherways: and also that it serve all uses as well as pure gold, it is in effect all one, as if so much silver were turned into gold; only the weight will discover it: yet that taketh off but half of the profit; for gold is not fully double weight to silver, but gold is twelve times price to silver.

The burial must be by one of these two ways, either by the smallness of the proportion, as perhaps fifty to one, which will be but six-pence gains in fifty shillings: or it must be holpen by somewhat which may fix the silver, never to be restored or vapoured away, when it is incorporated into such a mass of gold; for the less quantity is ever the harder to sever: and for this purpose iron is the likeliest, or coppel stuff, upon which the fire hath no power of consumption.

The making of gold seemeth a thing scarcely possible; because gold is the heaviest of metals, and to add matter is impossible: and again, to drive metals into a narrower room than their natural extent beareth, is a condensation hardly to be expected. But to make silver seemeth more easy, because both quicksilver and lead are weightier than silver; so as there needeth only fixing, and not condensing. The degree unto this that is already known, is infusing of quicksilver in a parchment, or otherwise, in the midst of molten lead when it cooleth; for this stupifieth the quicksilver that it runneth no more. This trial is to be advanced three ways. First, by iterating the melting of the lead, to see whether it will not make the quicksilver harder and harder. Secondly, to put realgar hot into the midst of the quicksilver, whereby it may be condensed, as well from within as without. Thirdly, to try it in the midst of molten iron, or molten steel, which is a body more likely to fix the quicksilver than lead. It may be also tried, by incorporating powder of steel, or coppel dust, by pounding, into the quicksilver, and so to proceed to the stupifying.

Upon glass, four things would be put in proof. The first, means to make the glass more crystalline. The second, to make it more strong for falls, and for fire, though it come not to the degree to be malleable. The third, to make it coloured by tinctures, comparable to or exceeding precious stones. The fourth, to make a compound body of glass and galleyle; that is, to have the colour milky like a chalcedon, being a stuff between a porcelain and a glass.

For the first; it is good first to know exactly the several materials whereof the glass in use is made; window-glass, Normandy and Burgundy, ale-house glass, English drinking-glass: and then thereupon to consider what the reason is of the coarseness or cleanness; and from thence to rise to a consideration how to make some additaments to the coarser materials, to raise them to the whiteness and crystalline splendour of the finest.

For the second; we see pebbles, and some other stones, will cut as fine as crystal, which if they will melt, may be a mixture for glass, and may make it more tough and more crystalline. Besides, we see metals will vitrify; and perhaps some portion of the glass of metal vitrified, mixed in the pot of ordinary glass-metal, will make the whole mass more tough.

For the third; it were good to have of coloured window-glass, such as is coloured in the pot, and not by colours-----

It is to be known of what stuff galleyle is made, and how the colours in it are varied; and thereupon to consider how to make the mixture of glass-metal and them, whereof I have seen the example.

Enquire what be the stones that do easiest melt. Of them take half a pound, and of iron a pound and half, and an ounce of brimstone, and see whether they will incorporate, being whole, with a strong fire. If not, try the same quantities calcined: and if they will incorporate, make a plate of them, and burnish it as they do iron.

Take a pound and a half of brass, and half a pound of iron; two ounces of the calaminar stone, an ounce and a half of brimstone, an ounce of lead; calcine them, and see what body they make; and if they incorporate, make a plate of it burnished.



## PHYSIOLOGICAL REMAINS.

Take of copper an ounce and a half, of tin an ounce, and melt them together, and make a plate of them burnished.

Take of copper an ounce and a half, of tin an ounce, of glass-metal half an ounce; stir them well in the boiling, and if they incorporate, make a plate of them burnished.

Take of copper a pound and a half, tin four ounces, brass two ounces; make a plate of them burnished.

Take of silver two ounces, tin half an ounce; make a little say-cup of it, and burnish it.

To enquire of the materials of every of the kind of glasses, coarser and finer, and of the proportions.

Take an equal quantity of glass-metal, of stone calcined, and bring a pattern.

Take an ounce of vitrified metal, and a pound of ordinary glass-metal, and see whether they will incorporate, and bring a pattern.

Bring examples of all coloured glasses, and learn the ingredients whereby they are coloured.

Enquire of the substance of galley.

## ARTICLES OF

## QUESTIONS touching MINERALS.

The Lord BACON's questions, with Dr. MEVEREL's solutions.

*Concerning the compounding, incorporating, or union of metals or minerals.*

*Which subject is the first letter of his Lordship's Alphabet.*

**W**ITH what metals gold will incorporate by simple colligefaction, and with what not? And in what quantity it will incorporate; and what kind of body the compound makes?

Gold with silver, which was the ancient *electrum*: gold with quick-silver: gold with lead: gold with copper: gold with brass: gold with iron: gold with tin.

So likewise of silver: silver with quick-silver: silver with lead: silver with copper: silver with brass: silver with iron: (*Plinius secund. lib. xxxiii. 9. Misit denario triumvir Antonius ferrum*) silver with tin.

So likewise of quick-silver: quick-silver with lead: quick-silver with copper: quick-silver with brass: quick-silver with iron: quick-silver with tin.

So of lead: lead with copper: lead with brass: lead with iron: lead with tin.

*Plin. xxxiv. 9.*

So of copper: copper with brass: copper with iron: copper with tin.

So of brass: brass with iron: brass with tin.

So of iron: iron with tin.

What be the compound metals that are common and known? And what are the proportions of their mixtures? As,

Latten of brass, and the calaminar stone.

Pewter of tin and lead.

Bell-metal of *etc.* and the counterfeit plate, which they call alchemy.

The decomposites of three metals or more, are too long to enquire of, except there be some compositions of them already observed.

It is also to be observed, whether any two metals, which will not mingle of themselves, will mingle with the help of another; and what.

What compounds will be made of metal with stone and other fossils; as latten is made with brass and the calaminar stone; as all the metals incorporate with vitriol; all with iron powdered; all with flint, *etc.*

Some few of these would be inquired of, to disclose the nature of the rest.

Whether metals or other fossils will incorporate with molten glass, and what body it makes?



The quantity in the mixture would be well considered; for some small quantity perhaps will incorporate, as in the allays of gold and silver coin.

Upon the compound body, three things are chiefly to be observed: the colour; the fragility or pliancy; the volatility or fixation, compared with the simple bodies.

For present use or profit, this is the rule: consider the price of the two simple bodies; consider again the dignity of the one above the other in use; then see if you can make a compound, that will save more in price, than it will lose in dignity of the use.

As for example; consider the price of brass ordnance; consider again the price of iron ordnance, and then consider wherein the brass ordnance doth excel the iron ordnance in use: then if you can make a compound of brass and iron that will be near as good in use, and much cheaper in price, then there is profit both to the private, and the common-wealth. So of gold and silver, the price is double of twelve: the dignity of gold above silver is not much, the splendour is alike, and more pleasing to some eyes, as in cloth of silver, silvered rapiers, *etc.* The main dignity is, that gold bears the fire, which silver doth not: but that is an excellency in nature, but it is nothing at all in use; for any dignity in use I know none, but that silvering will fully and canker more than gilding; which if it might be corrected with a little mixture of gold, there is profit: and I do somewhat marvel, that the latter ages have lost the ancient *electrum*, which was a mixture of silver with gold: whereof I conceive there may be much use, both in coin, plate, and gilding.

It is to be noted, that there is in the version of metals impossibility, or at least great difficulty, as in making of gold, silver, copper. On the other side, in the adulterating or counterfeiting of metals, there is deceit and villainy. But it should seem there is a middle way, and that is by new compounds, if the ways of incorporating were well known.

What incorporation or imbibition metals will receive from vegetables, without being dissolved in their substance: as when the armourers make their steel more tough and pliant, by asperison of water or juice of herbs; when gold being grown somewhat churlish by recovering, is made more pliant by throwing in shreds of tanned leather, or by leather oiled.

Note; that in these and the like shews of imbibition, it were good to try by the weights, whether the weight be increased, or no; for if it be not, it is to be doubted that there is no imbibition of substance, but only that the application of that other body doth dispose and invite the metal to another posture of parts, than of itself it would have taken.

After the incorporation of metals by simple colliguesfaction, for the better discovery of the nature, and consents and dissents of metals, it would be likewise tried by incorporating of their dissolutions. What metals being dissolved in strong waters will incorporate well together, and what not? Which is to be enquired particularly, as it was in colliguesfactions.

There is to be observed in those dissolutions which will not easily incorporate, what the effects are: as the bullition; the precipitation to the bottom; the ejaculation towards the top; the suspension in the midst; and the like.

Note; that the dissents of the menstrual or strong waters may hinder the incorporation, as well as the dissents of the metals themselves; therefore where the *menstrua* are the same, and yet the incorporation followeth not, you may conclude the dissent is in the metals; but where the *menstrua* are several, not so certain.

*Dr. Mevrell's answers to the foregoing questions, concerning the compounding, incorporating, or union of metals and minerals.*

**G**OLD will incorporate with silver in any proportion. *Plin. lib. xxxiii. cap. 4. Omni auro inest argentum vario pondere; alibi dena, alibi nona, alibi octava parte---* *Ubiunque quinta argenti portio invenitur, electrum vocatur.* The body remains fixt, solid, and coloured, according to the proportion of the two metals.

Gold



## P H Y S I O L O G I C A L R E M A I N S .

Gold with quick-silver easily mixeth, but the product is imperfectly fixed; and so are all other metals incorporate with mercury.

Gold incorporates with lead in any proportion.

Gold incorporates with copper in any proportion, the common alloy.

Gold incorporates with brass in any proportion. And what is said of copper is true of brass, in the union of other metals.

Gold will not incorporate with iron.

Gold incorporates with tin, the ancient alloy, Isa. i. 25.

What was said of gold and quick-silver, may be said of quick-silver and the rest of metals.

Silver with lead in any proportion.

Silver incorporates with copper. Pliny mentions such a mixture for triumphal statues, lib. xxxiii. 9. *Miscetur argento, tertia pars aeris Cypri tenuissimi, quod coronarium vocant, et subpuris vivi quantum argenti.* The same is true of brass.

Silver incorporates not with iron. Wherefore I wonder at that which Pliny hath, lib. xxxiii. 9. *Miscuit denario triumphis Antonius ferrum.* And what is said of this is true in the rest; for iron incorporateth with none of them.

Silver mixes with tin.

Lead incorporates with copper. Such a mixture was the pot-metal whereof Pliny speaks, lib. xxxiv. 9. *Ternis aut quaternis libris plumbi argentarii in centenas aeris additis.*

Lead incorporates with tin. The mixture of these two in equal proportions, is that which was anciently called *plumbum argentarium*, Plin. lib. xxxiv. 17.

Copper incorporates with tin. Of such a mixture were the mirrors of the Romans. Plin. *Atque ut omnia de speculis peragantur hoc loco, optima apud majores erant Brundisina, flamma et aere mistis.* Lib. xxxiii. 9.

*Compound metals now in use.*

1. Fine tin. The mixture is thus: pure tin a thousand pound, temper fifty pounds, glass of tin three pounds.

2. Coarse pewter is made of fine tin and lead. Temper is thus made: the drops of pure tin, four pound and a half; copper, half a pound.

3. Brass is made of copper and *calaminaris*.

4. Bell-metal. Copper, a thousand pound; tin, from three hundred to two hundred pound; brass, a hundred and fifty pound.

5. Pot-metal, copper and lead.

6. White alchemy is made of pan-brass one pound, and *arsenicum* three ounces.

7. Red alchemy is made of copper and auripigment.

There be divers imperfect minerals, which will incorporate with the metals: being indeed metals inwardly, but clothed with earths and stones: as *pyritis, calaminaris, misy, chalcitis, sory, vitriolum.*

Metals incorporate not with glass, except they be brought into the form of glass.

Metals dissolved. The dissolution of gold and silver disagree, so that in their mixture there is great ebullition, darkness, and in the end a precipitation of a black powder.

The mixture of gold and mercury agree.

Gold agrees with iron. In a word, the dissolution of mercury and iron agree with all the rest.

Silver and copper disagree, and so do silver and lead. Silver and tin agree.

*The second letter of the cross-row, touching the separation of metals and minerals.*

SEPARATION is of three sorts; the first, is the separating of the pure metal from the ore or drops, which we call refining. The second, is the drawing one metal or mineral out of another, which we call extracting. The third



third, is the separating of any metal into its original, or *materia prima*, or element, or call them what you will; which work we will call principiation.

1. For refining, we are to inquire of it according to the several metals; as gold, silver, *etc.* Incidentally we are to enquire of the first stone, or ore, or spar, or marcalite of metals severally, and what kind of bodies they are, and of the degrees of richness. Also we are to enquire of the means of separating, whether by fire, parting waters, or otherwise. Also for the manner of refining, you are to see how you can multiply the heat, or hasten the opening, and so save the charge in the fining.

The means of this in three manners; that is to say, in the blast of the fire; in the manner of the furnace, to multiply heat by union and reflexion; and by some additament, or medicines which will help the bodies to open them the sooner.

Note, the quickning of the blast, and the multiplying of the heat in the furnace, may be the same for all metals; but the additaments must be several, according to the nature of the metals. Note again, that if you think that multiplying of the additaments in the same proportion that you multiply the ore, the work will follow, you may be deceived: for quantity in the passive will add more resistance, than the same quantity in the active will add force.

2. For extracting, you are to enquire what metals contain others, and likewise what not; as lead, silver; copper, silver, *etc.*

Note, although the charge of extraction should exceed the worth, yet that is not the matter: for at least it will discover nature and possibility, the other may be thought on afterwards.

We are likewise to enquire what the differences are of those metals which contain more or less other metals, and how that agrees with the poorness or richness of the metals or ore in themselves. As the lead that contains most silver is accounted to be more brittle, and yet otherwise poorer in itself.

3. For principiation, I cannot affirm whether there be any such thing or not; and I think the chemists make too much ado about it: but howsoever it be, be it solution or extraction, or a kind of conversion by the fire; it is diligently to be enquired what salts, sulphur, vitriol, mercury, or the like simple bodies are to be found in the several metals, and in what quantity.

*Dr. Meuvrel's answers to the foregoing questions, touching the separations of metals and minerals.*

1. **F**OR the means of separating. After that the ore is washed, or cleansed from the earth, there is nothing simply necessary, save only a wind-furnace well framed, narrow above and at the hearth, in shape oval, sufficiently fed with char-coal and ore, in convenient proportions.

For additions in this first separation, I have observed none; the dross the mineral brings being sufficient. The refiners of iron observe, that that iron-stone is hardest to melt, which is fullest of metal, and that easiest which hath most dross. But in lead, and tin, the contrary is noted. Yet in melting of metals, when they have been calcined formerly by fire, or strong-waters, there is good use of additaments, as of borax, tartar, armoniack, and salt-petre.

2. In extracting of metals. Note, that lead and tin contain silver. Lead and silver contain gold. Iron contains brass. Silver is best separated from lead by the test. So gold from silver. Yet the best way for that is *aqua regia*.

3. For principiation. I can truly and boldly affirm, that there are no such principles as sal, sulphur, and mercury, which can be separated from any perfect metals. For every part so separated, may easily be reduced into perfect metal without substitution of that, or those principles which chemists imagine to be wanting. As suppose you take the salt of lead; this salt, or as some name it, sulphur, may be turned into perfect lead, by melting it with the like quantity of lead which contains principles only for itself.

I acknowledge that there is quick-silver and brimstone found in the imperfect minerals: but those are nature's remote materials, and not the chemist's principles.



## PHYSIOLOGICAL REMAINS.

ciples. As if you dissolve antimony by *aqua regia*, there will be real brimstone swimming upon the water : as appears by the colour of the fire when it is burnt, and by the smell.

*The third letter of the cross-row, touching the variation of metals into several shapes, bodies, or natures, the particulars whereof follow :*

**TINCTURE:** turning to rust: calcination: sublimation: precipitation: amalgamatizing, or turning into a soft body: vitrification: opening or dissolving into liquor: sproutings, or branchings, or arborescents: induration and mollification: making tough or brittle: volatility and fixation: transmutation, or version.

For tincture; it is to be enquired how metal may be tinged through and through, and with what, and into what colours; as tinging silver yellow, tinging copper white, and tinging red, green, blue; especially with keeping the lustre.

*Item, tincture of glasses.*

*Item, tincture of marble, flint, or other stone.*

For turning into rust, two things are chiefly to be enquired; by what corrodes it is done, and into what colours it turns; as lead into white, which they call *ceruss*; iron into yellow, which they call *crocus martis*; quicksilver into vermillion; brals into green, which they call verdigrise.

For calcination; how every metal is calcined, and into what kind of body, and what is the exquisitest way of calcination.

For sublimation; to enquire the manner of subliming, and what metals endure subliming, and what body the sublimate makes.

For precipitation likewise; by what strong water every metal will precipitate, and with what additaments, and in what time, and into what body.

So for amalgama; what metals will endure it, what are the means to do it, and what is the manner of the body.

For vitrification likewise; what metals will endure it, what are the means to do it, into what colour it turns; and farther, where the whole metal is turned into glass, and where the metal doth but hang in the glassy parts; also what weight the vitrified body bears, compared with the crude body; also because vitrification is accounted a kind of death of metals, what vitrification will admit of turning back again, and what not.

For dissolution into liquor, we are to enquire what is the proper *menstruum* to dissolve any metal, and in the negative, what will touch upon the one, and not upon the other, and what several *menstrua* will dissolve any metal, and which most exactly. *Item*, the process or motion of the dissolution, the manner of rising, boiling, vapouring more violent, or more gentle, causing much heat or less. *Item*, the quantity or charge that the strong water will bear, and then give over. *Item*, the colour into which the liquor will turn. Above all it is to be enquired, whether there be any *menstruum* to dissolve any metal that is not fretting, or corroding; and openeth the body by sympathy, and not by mordacity, or violent penetration.

For sprouting or branching, though it be a thing but transitory, and a kind of toy or pleasure, yet there is a more serious use of it; for that it discovereth the delicate motions of spirits, when they put forth and cannot get forth, like unto that which is in vegetables.

For induration, or mollification; it is to be enquired what will make metals harder and harder, and what will make them softer and softer. And this enquiry tendeth to two ends: first, for use; as to make iron soft by the fire makes it malleable. Secondly, because induration is a degree towards fixation, and mollification towards volatility; and therefore the enquiry of them will give light towards the other.

For tough and brittle, they are much of the same kind, but yet worthy of an enquiry apart, especially to join hardness with toughness, as making glass malleable, etc. and making blades strong to resist and pierce, and yet not easy to break.



For volatility and fixation. It is a principal branch to be enquired: the utmost degree of fixation is that whereon no fire will work, nor strong water joined with fire, if there be any such fixation possible. The next is, when fire simply will not work without strong waters. The next is by the test. The next is when it will endure fire not blown, or such a strength of fire. The next is when it will not endure, but yet is malleable. The next is when it is not malleable, but yet is not fluent, but stupified. So of volatility, the utmost degree is when it will fly away without returning. The next is when it will fly up, but with ease return. The next is when it will fly upwards over the helm by a kind of exuffation without vapouring. The next is when it will melt though not rise. The next is when it will soften though not melt. Of all these diligent enquiry is to be made in several metals, especially of the more extreme degrees.

For transmutation or version. If it be real and true, it is the farthest part of art, and would be well distinguished, from extraction, from restitution, and from adulteration. I hear much of turning iron into copper; I hear also of the growth of lead in weight, which cannot be without a conversion of some body into lead: but whatsoever is of this kind, and well expressed, is diligently to be enquired and set down.

*Dr. Mercers answers to the foregoing questions, concerning the variation of metals and minerals.*

1. **FOR** tinctures, there are none that I know, but that rich variety which springs from mixture of metals with metals, or imperfect minerals.
2. The imperfect metals are subject to rust, all of them except mercury, which is made into vermilion by solution, or calcination. The rest are rusted by any salt, sour, or acid water. Lead into a white body called *cerussa*. Iron into a pale red called *ferruga*. Copper is turned into green, named *aerugo*, *aes viride*. Tin into white: but this is not in use, neither hath it obtained a name. The Scriptures mention the rust of gold, but that is in regard of the allay.
3. Calcination. All metals may be calcined by strong waters, or by admixtion of salt, sulphur, and mercury. The imperfect metals may be calcined by continuance of simple fire; iron thus calcined is called *crecus martis*. And this is their best way. Gold and silver are best calcined by mercury. Their colour is grey. Lead calcined is very red. Copper dusky red.
4. Metals are sublimed by joining them with mercury or salts. As silver with mercury, gold with sal armoniac, mercury with vitriol.
5. Precipitation is, when any metal being dissolved into a strong water, is beaten down into a powder by salt water. The chiefest in this kind is oil of tartar.
6. Amalgamation, is the joining, or mixing of mercury with any other of the metals. The manner is this in gold, the rest are answerable: take six parts of mercury, make them hot in a crucible, and pour them to one part of gold made red hot in another crucible, stir these well together that they may incorporate; which done, cast the mass into cold water and wash it. This is called the amalgama of gold.
7. For vitrification. All the imperfect metals may be turned by strong fire into glass, except mercury; iron into green; lead into yellow; brass into blue; tin into pale yellow. For gold and silver, I have not known them vitrified, except joined with antimony. These glassy bodies may be reduced into the form of mineral bodies.
8. Dissolution. All metals without exception may be dissolved.
  - 1.) Iron may be dissolved by any tart, salt, or vitriolated water; yea, by common water, if it be first calcined with sulphur. It dissolves in *aqua fortis*, with great ebullition and heat, into a red liquor, so red as blood.
  - 2.) Lead is fittest dissolved in vinegar, into a pale yellow, making the vinegar very sweet.
  - 3.) Tin is best dissolved with distilled salt-water. It retains the colour of the *menstruum*.
  4. Copper



## PHYSIOLOGICAL REMAINS.

- 4.) Copper dissolves as iron doth, in the same liquor into a blue.
- 5.) Silver hath its proper *menstruum*, which is *aqua fortis*. The colour is green, with great heat and ebullition.
- 6.) Gold is dissolved with *aqua regia*, into a yellow liquor, with little heat or ebullition.
- 7.) Mercury is dissolved with much heat and boiling, into the same liquors which gold and silver are. It alters not the colour of the *menstruum*.
- Note. Strong waters may be charged with half their weight of fixed metals, and equal of mercury; if the workman be skilful.
9. Sprouting. This is an accident of dissolution. For if the *menstruum* be overcharged, then within short time the metals will shoot into certain crystals.
10. For induration, or mollification, they depend upon the quantity of fixed mercury and sulphur. I have observed little of them, neither of toughness nor brittleness.
11. The degrees of fixation and volatility I acknowledge, except the two utmost, which never were observed.
12. The question of transmutation is very doubtful. Wherefore I refer your honour to the fourth tome of *Theatrum chymicum*: and there, to that tract which is entituled *Disquisitio Heliana*; where you shall find full satisfaction.

*The fourth letter of the cross-row, touching restitution.*

**F**IRST, therefore, it is to be enquired in the negative, what bodies will never return, either by their extreme fixings, as in some vitrifications, or by extreme volatility.

It is also to be enquired of the two means of reduction; and first by the fire, which is but by congregation of homogeneal parts.

The second is, by drawing them down by some body that hath consent with them. As iron draweth down copper in water; gold draweth quick-silver in vapour; whatsoever is of this kind, is very diligently to be enquired.

Also it is to be inquired what time, or age, will reduce without help of fire or body.

Also it is to be enquired what gives impediment to union or restitution, which is sometimes called mortification; as when quick-silver is mortified with turpentine, spittle, or butter.

Lastly, it is to be enquired, how the metal restored, differeth in any thing from the metal rare: as whether it become not more churlish, altered in colour, or the like.

*Dr. Mevrel's answers touching the restitutions of metals and minerals.*

**R**EDUCTION is chiefly effected by fire, wherein if they stand and nele, the imperfect metals vapour away, and so do all manner of salts which separated them in *minimas partes* before.

Reduction is singularly holpen, by joining store of metal of the same nature with it in the melting.

Metals reduced are somewhat churlish, but not altered in colour.

## The Lord VERULAM'S INQUISITION

## CONCERNING THE

*Versions, transmutations, multiplications, and effections of bodies.*

**E**ARTH by fire is turned into brick, which is of the nature of a stone, and serveth for building, as stone doth: and the like of tile. *Qu.* the manner. Naphtha, which was the bituminous mortar used in the walls of Babylon, grows to an entire and very hard matter like a stone.

In clay countries, where there is pebble and gravel, you shall find great stones, where you may see the pebbles or gravel, and between them a substance of stone as hard or harder than the pebble itself.

There



## PHYSIOLOGICAL REMAINS.

There are some springs of water, wherein if you put wood, it will turn into the nature of stone: so as that within the water shall be stone, and that above the water continue wood.

The slime about the reins and bladder in man's body, turns into stone: and stone is likewise found often in the gall; and sometimes, though rarely, *in vena porta*.

*Quære* what time the substance of earth in quarries asketh to be turned into stone?

Water, as it seems, turneth into crystal, as is seen in divers caves, where the crystal hangs in *silicidiiis*.

Try wood, or the stalk of herbs, buried in quick-silver, whether it will not grow hard and stony.

They speak of a stone engendred in a toad's head.

There was a gentleman, digging in his moat, found an egg turned into stone, the white and the yolk keeping their colour, and the shell glittering like a stone cut with corners.

Try some things put into the bottom of a well; as wood, or some soft substance: but let it not touch the water, because it may not putrefy.

They speak, that the white of an egg, with lying long in the sun, will turn stone. Mud in water turns into shells of fishes, as in horse muscles, in fresh ponds, old and overgrown. And the substance is a wondrous fine substance, light and shining.

## A SPEECH touching the recovering of drowned mineral works.

*Prepared for the parliament (as Mr. Busshel affirmed) by the Viscount of St. Albans, then lord high chancellor of England\*.*

*My lords and gentlemen,*

THE king, my royal master, was lately (graciously) pleased to move some discourse to me concerning Mr. Sutton's hospital, and such like worthy foundations of memorable piety: which humbly seconded by myself, drew his majesty into a serious consideration of the mineral treasures of his own territories, and the practical discoveries of them by way of my philosophical theory: which he then so well resented, that, afterwards, upon a mature digestion of my whole design, he commanded me to let your lordships understand, how great an inclination he hath to further so hopeful a work, for the honour of his dominions, as the most probable means to relieve all the poor thereof, without any other stock or benevolence, than that which divine bounty should confer on their own industries and honest labours, in recovering all such drowned mineral works, as have been, or shall be therefore deserted.

And, my lords, all that is now desired of his majesty and your lordships, is no more than a gracious act of this present parliament to authorize them herein, adding a mercy to a munificence, which is, the persons of such strong and able petty-felons, who, in true penitence for their crimes, shall implore his majesty's mercy and permission to expiate their offences by their assiduous labours in so innocent and hopeful a work.

For, by this unchangeable way (my lords) have I proposed to erect the academical fabrick of this island's Solomon's house, modelled in my New Atlantis. And I can hope (my lords) that my midnight studies, to make our countries flourish and outvie European neighbours in mysterious and beneficent arts, have not so ingratiously affected your noble intellects, that you will delay or resist his majesty's desires, and my humble petition in this benevolent, yea, magnificent affair; since your honourable posterities may be enriched thereby, and my ends are only to make the world my heir, and the learned fathers of my Solomon's house, the successive and sworn trustees in the dispensation of this great service, for God's glory, my prince's magnificence, this parliament's honour, our country's general good, and the propagation of my own memory.



## PHYSIOLOGICAL REMAINS.

And I may assure your lordships, that all my proposals in order to this great architype, seemed so rational and feasible to my royal sovereign our christian Solomon, that I thereby prevailed with his majesty to call this honourable parliament, to confirm and empower me in my own way of mining, by an act of the same, after his majesty's more weighty affairs were considered in your wisdoms; both which he desires your lordships, and you gentlemen that are chosen as the patriots of your respective countries, to take speedy care of: which done, I shall not then doubt the happy issue of my undertakings in this design, whereby concealed treasures, which now seem utterly lost to mankind, shall be confined to so universal a piety, and brought into use by the industry of converted penitents, whose wretched carcases the impartial laws have, or shall dedicate, as untimely feasts, to the worms of the earth, in whose womb those deserted mineral riches must ever lie buried as lost abortions, unless those be made the active midwives to deliver them. For, my lords, I humbly conceive them to be the fittest of all men to effect this great work, for the ends and causes which I have before expressed.

All which, my lords, I humbly refer to your grave and solid judgments to conclude of, together with such other assistances to this frame, as your own oracular wisdom shall intimate, for the magnifying our Creator in his inscrutable providence, and admirable works of nature.

*Certain experiments made by the Lord BACON about weight in air and water.*

**A** New sovereign of equal weight in the air to the piece in bras, overweighteth in the water nine grains: in three sovereigns the difference in the water is but twenty four grains.

The same sovereign overweighteth an equal weight of lead, four grains in the water, in bras grains for gold: in three sovereigns about eleven grains.

The same sovereign overweighteth an equal weight of stones in the air, at least sixty five grains in the water: the grains being for the weight of gold, in bras metal.

A glass filled with water weighing, in Troy weights, thirteen ounces and five drams, the glass and the water together weigheth severally, viz. the water nine ounces and a half, and the glass four ounces and a dram.

A bladder weighing two ounces seven drams and a half, a pebble laid upon the top of the bladder makes three ounces six drams and a half, the stone weigheth seven drams.

The bladder (as above) blown, and the same fallen, weigheth equal.

A sponge dry weigheth one ounce twenty six grains: the same sponge being wet, weigheth fourteen ounces, six drams and three quarters: the water weigheth in several eleven ounces, one dram and a half, and the sponge three ounces and a half, and three quarters of a dram. First time.

The sponge and water together weigh fifteen ounces and seven drams: in several, the water weigheth eleven ounces and seven drams, and the sponge three ounces seven drams and a half. Second time.

Three sovereigns made equal to a weight in silver in the air, differ in the water. For false weights, one beam long, the other thick.

The stick and thread weigh half a dram, and twenty grains, being laid in the balance.

The stick tied to reach within half an inch of the end of the beam, and so much from the tongue, weigheth twenty eight grains; the difference is twenty two grains.

The same stick being tied to hang over the end of the beam an inch and a half, weigheth half a dram and twenty four grains, exceeding the weight of the said stick in the balance by four grains.

The same stick being hanged down beneath the thread, as near the tongue as is possible, weigheth only eight grains.

Two weights of gold being made equal in the air, and weighing severally seven drams;



drams; the one balance being put into the water, and the other hanging in the air, the balance in the water weigheth only five drams and three grains, and abatech of the weight in the air one dram and a half, and twenty seven grains.

The same trial being made the second time, and more truly and exactly betwixt gold and gold, weighing severally (as above) and making a just and equal weight in the air, the one balance being put into the water the depth of five inches, and the other hanging in the air, the balance in the water weigheth only four drams, and fifty five grains, and abatech of the weight in the air two drams, and five grains.

The trial being made betwixt lead and lead, weighing severally seven drams in the air, the balance in the water weigheth only four drams, and forty one grains, and abatech of the weight in the air two drams, and nineteen grains; the balance kept the same depth in the water as above said.

The trial being made betwixt silver and silver, weighing severally seven drams in the air, the balance in the water weigheth only four drams, and twenty five grains. So it abatech two drams, and thirty five grains; the same depth in the water observed.

In iron and iron, weighing severally each balance in the air seven drams, the balance in the water weigheth only four drams, and eighteen grains; and abatech of the weight in the air two drams, and forty two grains; the depth observe as above.

In stone and stone, the same weight of seven drams equally in the air, the balance in the water weigheth only two drams, and twenty two grains; and abatech of the weight in the air four drams, and thirty eight grains; the depth as above.

In brass and brass, the same weight of seven drams in each balance, equal in the air, the balance in the water weigheth only four drams, and twenty two grains; and abatech in the water two drams, and thirty eight grains; the depth observed.

The two balances being weighed in air and water, the balance in the air over-weigheth the other in the water one dram, and twenty eight grains; the depth in the water as aforesaid.

It is a profitable experiment which sheweth the weights of several bodies in comparison with water. It is of use in lading of ships, and other bottoms, and may help to shew what burthen in the several kinds they will bear.

*Certain sudden thoughts of the Lord BACON's,*

*Set down by him under the title of EXPERIMENTS FOR PROFIT.*

**M**UCK of leaves: muck of river, earth, and chalk: muck of earth elosed, both for salt-petre and muck: setting of wheat and pease: mending of crops by steeping of seeds: making pease, cherries, and strawberries come early: strengthening of earth for often returns of radishes, parsnips, turnips, *etc.* making great roots of onions, radishes, and other esculent roots: sowing of seeds of trefoil: setting of woad: setting of tobacco, and taking away the rawns: grafting upon boughs of old trees: making of a hasty coppice: planting of oſers in wet grounds: making of candles to last long: building of chimneys, furnaces, and ovens, to give heat with less wood: fixing of logwood: other means to make yellow and green fixed: conserving of oranges, lemons, citrons, pomegranates, *etc.* all summer: recovering of pearl, coral, turcoise colour, by a conservatory of snow: sowing of fenel: brewing with hay, haws, trefoil, broom, hips, bramble-berries, woodbines, wild thyme, instead of hops, thistles: multiplying and dressing artichokes.

*Certain experiments of the Lord BACON's, about the commixture of liquors only, not solids, without heat or agitation, but only by simple composition and setting.*

**S**PIRIT of wine mingled with common water, although it be much lighter than oil, yet so as if the first fall be broken, by means of a sop, or otherwise, it stayeth above; and if it be once mingled, it severeth not again, as oil doth. Tried with water coloured with saffron.

Spirit



## PHYSIOLOGICAL REMAINS.

Spirit of wine mingled with common water, hath a kind of clouding, and motion shewing no ready commixture. Tried with saffron.

A dram of gold dissolved in *aqua regis*, with a dram of copper in *aqua fortis* commixed, gave a green colour, but no visible motion in the parts. Note, that the dissolution of the gold was, twelve parts water, to one part body: and of the copper was, six parts water, to one part body.

Oil of almonds commixed with spirit of wine, severeth, and the spirit of wine remaineth on the top, and the oil in the bottom.

Gold dissolved commixed with spirit of wine, a dram of each, doth commix, and no other apparent alteration.

Quick-silver dissolved with gold dissolved, a dram of each, doth turn to a mouldy liquor, black, and like smiths water.

Note; the dissolution of the gold was twelve parts water *ut supra*, and one part metal: that of water was two parts, and one part metal.

Spirit of wine and quick-silver commixed, a dram of each, at the first shewed a white milky substance at the top, but soon after mingled.

Oil of vitriol commixed with oil of cloves, a dram of each, turneth into a red dark colour; and a substance thick almost like pitch, and upon the first motion gathereth an extreme heat, not to be endured by touch.

Dissolution of gold, and oil of vitriol commixed, a dram of each, gathereth a great heat at the first, and darkeneth the gold, and maketh a thick yellow.

Spirit of wine, and oil of vitriol, a dram of each, hardly mingle; the oil of vitriol going to the bottom, and the spirit of wine lying above in a milky substance. It gathereth also a great heat, and a sweetness in the taste.

Oil of vitriol, and dissolution of quick-silver, a dram of each, maketh an extreme stife, and casteth up a very gross fume, and after casteth down a white kind of curds, or sands; and on the top a slimish substance, and gathereth a great heat.

Oil of sulphur, and oil of cloves commixed, a dram of each, turn into a thick and red coloured substance; but no such heat as appeared in the commixture with the oil of vitriol.

Oil of *petroleum*, and spirit of wine, a dram of each, intermingle otherwise than by agitation, as wine and water do; and the *petroleum* remaineth on the top.

Oil of vitriol and *petroleum*, a dram of each, turn into a mouldy substance, and gathereth some warmth; there residing a black cloud in the bottom, and a monstrous thick oil on the top.

Spirit of wine, and red wine vinegar, one ounce of each, at the first fall, one of them remaineth above, but by agitation they mingle.

Oil of vitriol, and oil of almonds, one ounce of each, mingle not; but the oil of almonds remaineth above.

Spirit of wine and vinegar, an ounce of each, commixed, do mingle, without any apparent separation, which might be in respect of the colour.

Dissolution of iron, and oil of vitriol, a dram of each, do first put a milky substance into the bottom, and after incorporate into a mouldy substance.

Spirit of wine commixed with milk, a third part spirit of wine, and two parts milk, coagulath little, but minglath; and the spirit swims not above.

Milk and oil of almonds mingled, in equal portions, do hardly incorporate, but the oil cometh above, the milk being poured in last; and the milk appeareth in some drops or bubbles.

Milk one ounce, oil of vitriol a scruple, doth coagulate; the milk at the bottom, where the vitriol goeth.

Dissolution of gum tragacanth, and oil of sweet almonds, do not commingle, the oil remaining on the top till they be stirred, and make the mucilage somewhat more liquid.

Dissolution of gum tragacanth one ounce and a half, with half an ounce of spirit of wine being commixed by agitation, make the mucilage more thick.

The white of an egg with spirit of wine, doth bake the egg into clots as if it began to poch.



One ounce of blood, one ounce of milk, do easily incorporate.

Spirit of wine doth curdle the blood.

One ounce of whey unclarified, one ounce of oil of vitriol, make no apparent alteration.

One ounce of blood, one ounce of oil of almonds, incorporate not, but the oil swims above.

Three quarters of an ounce of wax being dissolved upon the fire, and one ounce of oil of almonds put together and stirred, do not so incorporate, but that when it is cold, the wax gathereth and swims upon the top of the oil.

One ounce of oil of almonds cast into an ounce of sugar seething, fever presently, the sugar shooting towards the bottom.

*A catalogue of bodies, attractive and not attractive, together with experimental observations about attraction.*

THESE following bodies draw: amber, jet, diamond, sapphire, carbuncle, iris, the gem opale, amethyst, *brissellina*, crystal, clear glass, glass of antimony, divers flowers from mines, sulphur, mastick, hard sealing-wax, the harder rosin, arsenick.

These following bodies do not draw: *smaragd*, *achates*, *cornelius*, pearl, *jaspis*, *chalcidonium*, alabaster, porphyry, coral, marble, touchstone, *baematites*, or blood-stone; *smyris*, ivory, bones, ebon-tree, cedar, cypriss, pitch, softer rosin, camphire, *galbanum*, ammoniack, storax, benjoin, load-stone, *asphaltum* \*.

These bodies, gold, silver, brass, iron, draw not, though never so finely polished.

In winter, if the air be sharp and clear, *sal gemmeum*, roch alum, and *lapis specularis*, will draw.

These following bodies are apt to be drawn, if the mass of them be small: chaff, woods, leaves, stones, all metals leaved, and in the mine; earth, water, oil.

\* The drawing of iron excepted.



# MEDICAL REMAINS.

## *Grains of youth.*

**T**AKE of nitre four grains, of ambergrise three grains, of orrice-powder two grains, of white poppy-seed the fourth part of a grain, of saffron half a grain, with water of orange-flowers, and a little tragacanth; make them into small grains, four in number. To be taken at four a-clock, or going to bed.

## *Preserving ointments.*

**T**AKE of deers suet one ounce, of myrrh fix grains, of saffron five grains, of bay-salt twelve grains, of Canary wine of two years old, a spoonful and a half. Spread it on the inside of your shirt, and let it dry, and then put it on.

## *A purge familiar for opening the liver.*

**T**AKE rhubarb two drams, agarick trochiscat one dram and a half, steep them in claret wine burnt with mace; take of wormwood one dram, steep it with the rest, and make a mass of pills, with *syrup. acetos. simplex.* But drink an opening broth before it, with succory, fenel, and smallage roots, and a little of an onion.

## *Wine for the spirits.*

**T**AKE gold perfectly refined three ounces, quench it six or seven times in good claret wine; add of nitre fix grains for two draughts: add of saffron prepared three grains, of ambergrise four grains, pass it through an hippocratis bag, wherein there is a dram of cinnamon gross beaten, or, to avoid the dimming of the colour, of ginger. Take two spoonfuls of this to a draught of fresh claret wine.

## *The preparing of saffron.*

**T**AKE fix grains of saffron, steeped in half parts of wine and rose-water, and a quarter part vinegar; then dry it in the sun.

## *Wine against adverse melancholy, preserving the senses and the reason.*

**T**AKE the roots of bugloss well scraped and cleansed from their inner pith, and cut them into small slices; steep them in wine of gold extinguished *ut supra*, and add of nitre three grains, and drink it *ut supra*, mixed with fresh wine: the roots must not continue steeped above a quarter of an hour; and they must be changed thrice.

## *Breakfast preservative against the gout and rheums.*

**T**o take once in the month at least, and for two days together, one grain of *callosi* in my ordinary broth.

## *The preparation of garlick.*

**T**AKE garlick four ounces, boil it upon a soft fire in claret wine, for half an hour. Take it out and steep it in vinegar; whereto add two drams of cloves, then take it forth, and keep it in a glass for use.

## *The artificial preparation of damask roses for smell.*

**T**AKE roses, pull their leaves, then dry them in a clear day in the hot sun; then their smell will be as gone. Then cram them into an earthen bottle, very dry and sweet, and stop it very close; they will remain in smell and colour both fresher, than those that are otherwise dried. Note, the first drying, and close keeping upon it, preventeth all putrefaction, and the second spirit cometh forth, made of the remaining moisture not dissipated.



*A restorative drink.*

TAKE of Indian maiz half a pound, grind it not too small, but to the fineness of ordinary meal, and then bolt and scarce it, that all the husky part may be taken away. Take of *cyngium* roots three ounces, of dates as much, of *emula* two drams, of mace three drams, and brew them with ten shilling beer to the quantity of four gallons: and this do, either by decocting them in a pottle of wort, to be after mingled with the beer, being new tapped, or otherwise infuse it in the new beer in a bag. Use this familiarly at meals.

*Against the waste of the body by heat.*

TAKE sweet pomegranates, and strain them lightly, not pressing the kernel, into a glass; where put some little of the peel of a citron, and two or three cloves, and three grains of ambergrise, and a pretty deal of fine sugar. It is to be drunk every morning whilst pomegranates last.

*Meluselen water.* Against all sperry and corrosion of inward parts, and all adhesion of the blood, and generally against the dryness of age.

TAKE crevies very new, *q. s.* boil them well in claret wine; of them take only the shells, and rub them very clean, especially on the inside, that they may be thoroughly cleansed from the meat. Then wash them three or four times in fresh claret wine, heated: still changing the wine, till all the fish-taste be quite taken away. But in the wine whereon they are washed, steep some tops of green rosemary; then dry the pure shell thoroughly, and bring them to an exquisite powder. Of this powder take three drams. Take also pearl, and steep them in vinegar twelve hours, and dry off the vinegar; of this powder also take three drams. Then put the shell powder and pearl powder together, and add to them of ginger one scruple, and of white poppy seed half a scruple, and steep them in spirit of wine (wherein six grains of saffron have been dissolved) seven hours. Then upon a gentle heat, vapour away all the spirit of wine, and dry the powder against the sun without fire. Add to it of nitre one dram, of amber-grise one scruple and a half; and so keep this powder for use in a clean glass. Then take a pottle of milk, and slice in it of fresh cucumbers, the inner pith only (the rind being pared off) four ounces, and draw forth a water by distillation. Take of claret wine a pint, and quench gold in it four times.

Of the wine, and of the water of milk, take of each three ounces, of the powder one scruple, and drink it in the morning; stir up the powder when you drink, and walk upon it.

*A catalogue of astringents, openers and cordials instrumental to health.*

A S T R I N G E N T S.

**R**ED rose, black-berry, myrtle, plantane, flower of pomegranate, mint, aloes well washed, myrobalanes, sloes, *agrestia fraga*, mastich, myrrh, saffron, leaves of rosemary, rhubarb received by infusion, cloves, service-berries, *cornu*, wormwood, bole armeniac, sealed earth, cinquefoil, tincture of steel, *sanguis draconis*, coral, amber, quinces, spikenard, galls, alum, blood-stone, mummy, *animum*, galangal, cyprels, ivy, *psyllum*, houseck, fallow, mullein, vine, oak-leaves, *lignum alois*, red sanders, mulberry, medlars, flowers of peach-trees, pomegranates, pears, palmule, pith of kernels, purslain, *acacia*, *laudanum*, *tracacanth*, *thus albani*, comfrey, shepherds-purse, *polygonum*.

*Astringents (both hot and cold) which corroborate the parts, and which confirm and refresh such of them as are loose or languishing.*

ROSEMARY, mint, especially with vinegar, cloves, cinnamon, cardamom, lign-aloes, rose, myrtle, red sanders, *cotonea*, red wine, chalybeat wine, five-finger grals, plantane, apples of cyprels, berberies, *fraga*, service-berries, cornels, ribes, four pears, rambesia.

*Astringents*



## M E D I C A L R E M A I N S.

*Astringents styptic, which by their styptic virtue may stay fluxes.*

Sloes, *acacia*, rind of pomegranates infused, at least three hours, the styptic virtue not coming forth in lesser time. Alum, galls, juice of fallow, syrup of unripe quinces, *balauisia*, the whites of eggs boiled hard in vinegar.

*Astringents, which by their cold and earthy nature may stay the motion of the humours tending to a flux.*

SEALED earth, *sanguis draconis*, coral, pearls, the shell of the fish *dactylus*.

*Astringents, which by the thickness of their substance stuf as it were the thin humours, and thereby stay fluxes.*

RICE, beans, millet, cauls, dry cheese, fresh goats milk.

*Astringents, which by virtue of their glutinous substance restrain a flux, and strengthen the looser parts.*

KARABE\*, mastic, *sodium*, hartshorn, frankincense, dried bulls pissle, gum tragacanth.

*Astringents purgative, which, having by their purgative or expulsive power thrust out the humours, leave behind them astringive virtue.*

РУВВАРЪ, especially that which is toasted against the fire; myrobalanes, tart, tamarinds (an Indian fruit like green damascenes.)

*Astringents which do very much suck and dry up the humours, and thereby stay fluxes.*

RUST of iron, *crocus martis*, ashes of spices.

*Astringents, which by their nature do dull the spirits, and lay asleep the expulsive virtue, and take away the acrimony of all humours.*

LAUDANUM, mithridate, *diascordium*, *diacodium*.

*Astringents, which by cherishing the strength of the parts, do comfort and confirm their retentive power.*

A stomacher of scarlet cloth: whelps, or young healthy boys, applied to the stomach: hippocratic wines, so they be made of austere materials.

## O P E N E R S.

SUCCORY, endive, betony, liverwort, *petroselinum*, smallage, *asparagus*, roots of grals, dodder, tamarisk, *juncus odoratus*, *lacca*, *cyparissus*, wormwood, *chamaepitys*, *sumaria*, scurvy-grals, eringo, nettle, *irras*, elder, hyssop, *aristolochia*, gentian, *coffus*, fenel-root, maiden-hair, harts-tongue, daffodilly, asarum, *salsaparilla*, *sassafras*, acorns, *abretonium*, aloes, agaric, rhubarb infused, onions, garlic, bother, *squilla*, sow-bread, Indian nard, Celtic nard, bark of laurel tree, bitter almonds, holy thistle, camomile, gun-powder, fows (*millepedes*) ammoniac, man's urine, rue, park leaves (*virex*) centaury, lupines, *chamaedrys*, *coelum*, *ammios*, bistort, camphire, *daucus* seed, Indian balsam, *scordium*, sweet cane, galingal, agrimony.

## C O R D I A L S.

FLOWERS of basil royal, *fores caryophyllati*, flowers of bugloss and borage, rind of citron, orange flowers, rosemary, and its flowers, saffron, musk, amber, *solum* (i. e. *nardi solum*) balm-gente, pimpernel, gems, gold, generous wines, fragrant apples, rose, *rosa moschata*, cloves, lign-aloes, mace, cinnamon, nutmeg, cardamom, galingal, vinegar, kermes berry, *berba moschata*, betony, white sanders, camphire, flowers of heliotrope, penny-royal, *scordium*, *opium* corrected, white pepper, *nasturtium*, white and red bean, *castum dulce*, *dactylus*, pine, fig,

\* Perhaps he meant the fruit of Karabe.



egg shell, *vinum malvaticum*, ginger, kidneys, oysters, crevices (or river crabs) seed of nettle, oil of sweet almonds, *Jesaminum oleum*, *asparagus*, bulbous roots, onions, garlick, *cruca*, *daucus* seed, *erugo*, *siler montanus*, the smell of milk, *cynethi odor*, caraway seed, flower of pils, aniseed, pellitory, anointing of the testicles with oil of elder, in which pellitory hath been boiled, cloves with goats milk, *olibanum*.

*An extract by the Lord BACON, for his own use, out of the book Of the prolongation of life, together with some new advices in order to health.*

1. ONCE in the week, or at least in the fortnight, to take the water of mithridate distilled, with three parts to one, or strawberry water to allay it; and some grains of nitre and saffron, in the morning between sleeps.

2. To continue my broth with nitre; but to interchange it every other two days, with the juice of pomegranates expressed, with a little cloves, and rind of citron.

3. To order the taking of the maceration (a), as followeth.

To add to the maceration six grains of *cremor tartari*, and as much *emula*.

To add to the oxymel some infusion of fenel roots in the vinegar, and four grains of angelica seed, and juice of lemons, a third part to the vinegar.

To take it not so immediately before supper; and to have the broth specially made with barley, rosemary, thyme, and creffes.

SOMETIMES to add to the maceration three grains of tartar, and two of *emula*, to cut the more heavy and viscous humours; lest rhubarb work only upon the lightest.

To take sometimes the oxymel before it, and sometimes the Spanish honey simple.

4. To take once in the month at least, and for two days together, a grain and a half of castor in my broth, and breakfast.

5. A cooling clyster to be used once a month, after the working of the maceration is settled.

TAKE of barley water, in which the roots of bugloss are boiled, three ounces, with two drams of red sanders, and two ounces of raisins of the sun, and one ounce of dactyles, and an ounce and a half of fat caricks; let it be strained, and add to it an ounce and a half of syrup of violets; let a clyster be made. Let this be taken (with veal) in the aforesaid decoction.

6. To take every morning the fume of lign-aloes, rosemary and bays dried, which I use; but once in a week to add a little tobacco, without otherwise taking it in a pipe.

7. To appoint every day an hour *ad affectus intentionales et sanos. Sy. de particulari.*

8. To remember masticatories for the mouth.

9. AND orange-flower water to be smelt to, or snuffed up.

10. In the third hour, after the sun is risen, to take in air from some high and open place, with a ventilation of *rosae moschatae*, and fresh violets; and to stir the earth, with infusion of wine and mint.

11. To use ale with a little *emula campana*, *carduus*, germander, sage, angelica seed, creffes of a middle age, to beget a robust heat.

12. MITHRIDATE thrice a year.

13. A BIT of bread dipt in *vin odorato*, with syrup of dry roses, and a little amber, at going to bed.

14. NEVER to keep the body in the same posture above half an hour at a time.

15. FOUR precepts. To break off custom. To shake off spirits ill disposed. To meditate on youth. To do nothing against a man's genius.

16. SYRUP of quinces for the mouth of the stomach. Enquire concerning other things useful in that kind.

(a) *Viz.* Of rhubarb infused into a draught of white wine and beer, mingled together, for the space of half an hour, once in six or seven days. See the Lord Bacon's life by Dr. Rawley, towards the end.



## M E D I C A L R E M A I N S.

17. To use once during supper time wine in which gold is quenched.
18. To use anointing in the morning lightly with oil of almonds, with salt and saffron, and a gentle rubbing.
19. Ale of the second infusion of the vine of oak.
20. METHUSALEM water, of pearls and shells of crabs, and a little chalk.
21. Ale of raisins, dactyles, potatoes, pistachios, honey, tragacanth, mastick.
22. WINE with swines flesh, or harts flesh.
23. To drink the first cup at supper hot, and half an hour before supper something hot and aromatis'd.
24. CHALYBEATS, four times a year.
25. PILULÆ *ex tribus*, once in two months, but after the maïs has been macerated in oil of almonds.
26. HEROIC desires.
27. BATHING of the feet once in a month, with lye *ex sale nigro*, camomile, sweet majoram, fenel, sage, and a little *aqua vitae*.
28. To provide always an apt breakfast.
29. To beat the flesh before roasting of it.
30. MACERATIONS in pickles.
31. AGITATION of beer by ropes, or in wheel-barrows.
32. THAT diet is good which makes lean, and then renews. Consider of the ways to effect it.

## M E D I C A L R E C E I P T S of the lord BACON.

*His lordship's usual receipt for the Gout.*

*To which he refers Nat. Hist. Cent. I. N. 69. p. 128.*

1. *The poulitis.*

TAKE of manchet about three ounces, the crumb only, thin cut; let it be boiled in milk till it grow to a pulp. Add in the end a dram and a half of the powder of red roses; of saffron ten grains; of oil of roses an ounce; let it be spread upon a linen cloth, and applied lukewarm, and continued for three hours space.

2. *The bath or fomentation.*

TAKE of sage leaves half a handful; of the root of hemlock sliced six drams; of briony roots half an ounce; of the leaves of red roses two pugils; let them be boiled in a pottle of water, wherein steel hath been quenched, till the liquor come to a quart. After the straining, put in half a handful of bay salt. Let it be used with scarlet cloth, or scarlet wool, dipped in the liquor hot, and so renewed seven times; all in the space of a quarter of an hour, or little more.

3. *The plaister.*

TAKE *Emplastrum diachalciteos*, as much as is sufficient for the part you mean to cover. Let it be dissolved with oil of roses, in such a consistence as will stick, and spread upon a piece of holland, and applied.

*His lordship's broth and fomentation for the Stone.**The broth.*

TAKE one dram of *eryngium* roots, cleansed and sliced; and boil them together with a chicken. In the end, add of elder flowers, and marigold flowers together, one pugil; of angelica seed half a dram, of raisins of the sun stoned, fifteen; of rosemary, thyme, mace, together, a little.

In



In fix ounces of this broth, or thereabouts, let there be dissolved of white *temor tartari* three grains.

Every third or fourth day, take a small toast of manchet, dipped in oil of sweet almonds new drawn, and sprinkled with a little loaf sugar. You may make the broth for two days, and take the one half every day. If you find the stone to stir, forbear the toast for a course or two. The intention of this broth is, not to void, but to undermine the quarry of the stones in the kidneys.

*The fomentation.*

TAKE of leaves of violets, mallows, pellitory of the wall, together, one handful; of flowers of camomile and mellilot, together, one pugil; the root of marsh-mallows, one ounce; of anis and fensel seeds, together, one ounce and a half; of flax-seed, two drams. Make a decoction in spring water.

*The second receipt, shewing the way of making a certain ointment, which his lordship called, Unguentum fragrans, five Romanum; the fragrant or Roman unguent.*

TAKE of the fat of a deer half a pound; of oil of sweet almonds, two ounces: let them be set upon a very gentle fire, and stirred with a stick of juniper till they are melted. Add of root of flower-de-luce powdered, damask roses powdered, together, one dram; of myrrh dissolved in rose-water, half a dram; of cloves half a scruple; of civet four grains; of musk six grains; of oil of mace expressed one drop; as much of rose-water as sufficeth to keep the unguent from being too thick. Let all these be put together in a glass, and set upon the embers for the space of an hour, and stirred with a stick of juniper.

Note; that in the confectiion of this ointment, there was not used above a quarter of a pound, and a tenth part of a quarter of deer's suet: and that all the ingredients, except the oil of almonds, were doubled when the ointment was half made, because the fat things seemed to be too predominant.

*The third receipt. A manus Christi for the stomach.*

TAKE of the best pearls very finely pulveriz'd, one dram; of sal nitre one scruple; of tartar two scruples; of ginger and galingal together, one ounce and a half; of *calamus*, root of *emula campana*, nutmeg, together, one scruple and a half; of amber sixteen grains; of the best musk ten grains; with rose-water and the finest sugar, let there be made a *manus Christi*.

*The fourth receipt. A secret for the stomach.*

TAKE *lignum aloës* in gross shavings, steep them in sack, or alicant, changed twice, half an hour at a time, till the bitterness be drawn forth. Then take the shavings forth, and dry them in the shade, and beat them to an excellent powder. Of that powder, with the syrup of citrons, make a small pill, to be taken before supper.





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WORKS

MORAL

AND

POLITICAL.

VOL. I.

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TO THE PUBLIC WORKS

GOOD BYE

of the

# ТЕНДАРА

WORKS FROM THE



# WORKS MORAL.

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A FRAGMENT of the

C O L O U R S

OF

GOOD and EVIL.

TO THE LORD MOUNTJOYE.

**I** SEND you the last part of the best book of Aristotle of Stagira, who (as your lordship knoweth) goeth for the best author. But saving the civil respect which is due to a received estimation, the man being a Grecian, and of a hasty wit, having hardly a discerning patience, much less a teaching patience, hath so delivered the matter, as I am glad to do the part of a good house-hen, which without any strangeness will sit upon pheasants eggs. And yet perchance, some that shall compare my lines with Aristotle's lines, will muse by what art, or rather by what revelation, I could draw these conceits out of that place. But I, that should know best, do freely acknowledge, that I had my light from him; for where he gave me not matter to perfect, at the least he gave me occasion to invent. Wherein as I do him right, being myself a man that am as free from envying the dead in contemplation, as from envying the living in action or fortune: so yet nevertheless still I say, and I speak it more largely than before, that in perusing the writings of this person so much celebrated, whether it were the impediment of his wit, or that he did it upon glory and affectation to be subtle, as one that if he had seen his own conceits clearly and perspicuously delivered, perhaps would have been out of love with them himself; or else upon policy, to keep himself close, as one that had been a challenger of all the world, and had raised infinite contradiction: to what cause soever it is to be ascribed, I do not find him to deliver and unwrap himself well of that he seemeth to conceive; nor to be a master of his own knowledge. Neither do I for my part also (though I have brought in a new manner of handling this argument, to make it pleasant and lightome) pretend so to have overcome the nature of the subject; but that the full understanding and use of it will be somewhat dark, and best pleasing the taste of such wits as are patient to stay the digesting and solving unto themselves of that which is sharp and subtle. Which was the cause, joined with the love and honour which I bear to your lordship, as the person I know to have many virtues, and an excellent order of them, which moved me to dedicate this writing to your lordship, after the ancient manner: chusing both a friend, and one to whom I conceived the argument was agreeable.



## OF THE COLOURS of GOOD and EVIL.

**I**N deliberatives, the point is, what is good, and what is evil; and of good, what is greater, and of evil, what is less.

So that the persuader's labour is, to make things appear good or evil, and that in higher or lower degree: which as it may be performed by true and solid reasons, so it may be represented also by colours, popularities and circumstances; which are of such force, as they sway the ordinary judgment either of a weak man, or of a wise man, not fully and considerately attending and pondering the matter. Besides their power to alter the nature of the subject in appearance, and so to lead to error, they are of no less use to quicken and strengthen the opinions and persuasions which are true; for reasons plainly delivered, and always after one manner, especially with fine and fastidious minds, enter but heavily and dully: whereas if they be varied, and have more life and vigour put into them by these forms and insinuations, they cause a stronger apprehension, and many times suddenly win the mind to a resolution. Lastly, to make a true and safe judgment, nothing can be of greater use and defence to the mind, than the discovering and reprehension of these colours, shewing in what cases they hold, and in what they deceive: which, as it cannot be done but out of a very universal knowledge of the nature of things, so being performed, it so cleareth man's judgment and election, as it is the less apt to slide into any error.

**A** TABLE of the colours, or appearances, of Good and Evil, and their degrees, as places of persuasion and dissuasion, and their several fallacies, and the elenches of them.

### I.

*Cui caeterae partes vel sectae secundas unanimiter deserunt, cum singulae principatum sibi vindicant, melior reliquis videtur. Nam primas quaeque ex zelo videtur sumere, secundas autem ex vero et merito tribuere.*

**S**O Cicero went about to prove the sect of Academicks, which suspended all asseveration, for to be the best; For, saith he, ask a Stoick which philosophy is true, he will prefer his own. Then ask him, which approacheth next the truth, he will confess the Academicks. So deal with the Epicure, that will scarce endure the Stoick to be in sight of him; so soon as he hath placed himself, he will place the Academicks next him. So if a prince took divers competitors to a place, and examined them severally, whom next themselves they would rarest commend, it were like the ablest man should have the most second voices.

The fallax of this colour happeneth oft in respect of envy, for men are accustomed after themselves and their own faction, to incline unto them which are softest, and are least in their way, in despite and derogation of them that hold them hardest to it. So that this colour of meliority and preheminance is a sign of enervation and weakneſs.

### II.

*Cujus excellentia vel exuperantia melior, id toto genere melius.*

**A**PERTAINING to this, are the forms: "Let us not wander in generalities: Let us compare particular with particular," etc. This appearance, though it seem of strength, and rather logical than rhetorical, yet is very oft a fallax.

Sometime because some things are in kind very casual, which if they escape prove excellent; so that the kind is inferior, because it is so subject to peril, but that which is excellent being proved is superior: as the blossom of March, and the blossom of May, whereof the French verse goeth:

Burgeon



*Burgeon de Mars, enfans de Paris,  
Si un eschape, il en vaut dix.*

So that the blossom of May is generally better than the blossom of March; and yet the best blossom of March is better than the best blossom of May. Sometimes because the nature of some kinds is to be more equal, and more indifferent, and not to have very distant degrees: as hath been noted, in the warmer climates the people are generally more wise, but in the northern climates the wits of chief are greater. So in many armies, if the matter should be tried by duel between two champions, the victory should go on the one side; and yet if it be tried by the gross, it would go on the other side: for excellencies go as it were by chance, but kinds go by a more certain nature; as by discipline in war.

Lastly; many kinds have much refuse, which countervail that which they have excellent: and therefore generally metal is more precious than stone; and yet a diamond is more precious than gold.

## III.

*Quod ad veritatem refertur, majus est, quam quod ad opinionem. Modus autem  
et probatio ejus, quod ad opinionem pertinet, haec est: quod quis, si clam  
pularet fore, facturus non esset.*

SO the Epicures say of the Stoicks felicity placed in virtue, that it is like the felicity of a player, who if he were left of his auditory and their applause, he would straight be out of heart and countenance; and therefore they call virtue *bonum teatrale*: but of riches the poet saith;

*Populus me sibilat; at mihi plaudo.*

And of pleasure,

*Grata sub imo*

*Gaudia corde premens, cultu simulante pudorem.*

The fallax of this colour is somewhat subtle, though the answer to the example be ready, for virtue is not chosen *propter auram popularem*; but contrariwise, *maxime omnium teipsum reverere*: so as a virtuous man will be virtuous in *solitudine*, and not only in *theatro*, though perchance it will be more strong by glory and fame, as an heat which is doubled by reflexion. But that denieth the supposition, it doth not reprehend the fallax; whereof the reprehension is: Allow that virtue (such as is joined with labour and conflict) would not be chosen but for fame and opinion; yet it followeth not that the chief motive of the election should not be real and for itself; for fame may be only *causa impulsiva*, and not *causa constituens*, or *efficiens*. As if there were two horses, and the one would do better without the spur than the other: but again, the other with the spur would far exceed the doing of the former, giving him the spur also; yet the latter will be judged to be the better horse. And the form, as to say, “Tush, the life of this horse is but in the spur,” will not serve as to a wise judgment: for since the ordinary instrument of horsemanship is the spur, and that it is no matter of impediment or burden, the horse is not to be accounted the less of, which will not do well without the spur; but rather the other is to be reckoned a delicacy than a virtue. So glory and honour are the spurs to virtue: and although virtue would languish without them, yet since they be always at hand to attend virtue, virtue is not to be said the less chosen for itself, because it needeth the spur of fame and reputation: and therefore that position, *nota ejus, quod propter opinionem et non propter veritatem eligitur, haec est; quod quis, si clam pularet fore, facturus non esset*, is reprehended.

## IV.

*Quod rem integram servat, bonum; quod sine receptu est, malum: nam se recipere non posse, impotentiae genus est; potentia autem bonum.*

HEREOF Aesop framed the fable of the two frogs, that consulted together in the time of drought (when many plashes, that they had repaired to, were dry) what was to be done; and the one propounded to go down into a

Vol. I.

5 B

deep



## COLOURS OF GOOD AND EVIL

deep well, because it was like the water would not fail there; but the other answered, "Yea, but if it do fail, how shall we get up again?" And the reason is, that human actions are so uncertain and subject to perils, as that seemeth the best course which hath most passages out of it. Appertaining to this persuasion, the forms are: You shall engage yourself; on the other side, *Nec tantum, quantum voles, sumes ex fortuna, etc.* You shall keep the matter in your own hand.

The reprehension of it is, that proceeding and resolving in all actions is necessary. For as he saith well, Not to resolve, is to resolve; and many times it breeds as many necessities, and engageth as far in some other sort, as to resolve. So it is but the covetous man's disease, translated into power; for the covetous man will enjoy nothing, because he will have his full store and possibility to enjoy the more; so by this reason a man should execute nothing, because he should be still indifferent, and at liberty to execute any thing. Besides, necessity and this same *jacta est alea*, hath many times an advantage, because it awaketh the powers of the mind, and strengtheneth endeavour; *Cæteris pares, necessitate certe superiores esis*.

## V.

*Quod ex pluribus constat et divisibilibus est majus, quam quod ex paucioribus, et magis unum; nam omnia per partes considerata majora videntur: quare et pluralitas partium magnitudinem præ se fert: fortius autem operatur pluralitas partium, si ordo abest; nam inducit similitudinem infiniti, et impedit comprehensionem.*

**T**HIS colour seemeth palpable; for it is not plurality of parts without majority of parts, that maketh the total greater; yet nevertheless it often carries the mind away, yea, it deceiveth the sense; as it seemeth to the eye a shorter distance of way, if it be all dead and continued, than if it have trees or buildings, or any other marks whereby the eye may divide it. So when a great moneyed man hath divided his chests, and coins, and bags, he seemeth to himself richer than he was; and therefore a way to amplify any thing is, to break it, and to make anatomy of it in several parts, and to examine it according to several circumstances. And this maketh the greater shew if it be done without order, for confusion maketh things mustier more; and besides, what is set down by order and division, doth demonstrate that nothing is left out or omitted, but all is there; whereas if it be without order, both the mind comprehendeth less that which is set down; and besides, it leaveth a suspicion, as if more might be said than is expressed.

This colour deceiveth, if the mind of him that is to be persuaded, do of itself over-conceive, or prejudice of the greatness of any thing; for then the breaking of it will make it seem less, because it maketh it to appear more according to the truth: and therefore if a man be in sickness or pain, the time will seem longer without a clock or hour-glass, than with it; for the mind doth value every moment, and then the hour doth rather sum up the moments, than divide the day. So in a dead plain the way seemeth the longer, because the eye hath preconceived it shorter than the truth; and the frustrating of that maketh it seem longer than the truth. Therefore if any man have an over-great opinion of any thing, then if another think by breaking it into several considerations he shall make it seem greater to him, he will be deceived; and therefore in such cases it is not safe to divide, but to extol the entire still in general. Another case wherein this colour deceiveth, is, when the matter broken or divided is not comprehended by the sense or made at once, in respect of the distracting or scattering of it; and being entire and not divided, is comprehended: as an hundred pounds in heaps of five pounds will shew more than in one gross heap, so as the heaps be all upon one table to be seen at once, otherwise not; as flowers growing scattered in divers beds will shew more than if they did grow in one bed, so as all those beds be within a plot, that they be object to view at once, otherwise not: and therefore men, whose living lieth together in one shire, are commonly counted greater landed than those whose livings are dispersed, though it be more because of the notice and comprehension.



comprehension. A third case wherein this colour deceiveth, and it is not so properly a case of reprehension, as it is a counter colour, being in effect as large as the colour itself; and that is, *omnis compositio indigentiae cuiusdam in singulis videtur esse particeps*, because if one thing would serve the turn, it were ever best, but the defect and imperfections of things hath brought in that help to piece them up, as it is said, *Martha, Martha, attendis ad plurima, unum sufficit*. So likewise hereupon Æsop framed the fable of the fox and the cat; whereas the fox bragged what a number of shifts and devices he had to get from the hounds, and the cat said he had but one, which was to climb a tree, which in proof was better worth than all the rest; whereof the proverb grew, *Multa nocet vulpes, sed felis unum magnum*. And in the moral of this fable it comes likewise to pass, that a good sure friend is a better help at a pinch, than all the stratagems and policies of a man's own wit. So it falleth out to be a common error in negotiating, whereas men have many reasons to induce or persuade, they strive commonly to utter and use them all at once, which weakeneth them. For it argueth, as was said, a neediness in every of the reasons by itself, as if one did not trust to any of them, but fled from one to another, helping himself only with that: *Et quæ non prosunt singula, multa juvant*. Indeed in a set speech in an assembly, it is expected a man should use all his reasons in the case he handleth, but in private persuasions it is always a great error. A fourth case wherein this colour may be reprehended, is in respect of that same *vis unita fortior*, according to the tale of the French king, that when the emperor's ambassador had recited his master's style at large, which consisteth of many countries and dominions; the French king willed his chancellor, or other minister, to repeat over France as many times as the other had recited the several dominions; intending it was equivalent with them all, and more compacted and united. There is also appertaining to this colour another point, why breaking of a thing doth help it, not by way of adding a shew of magnitude unto it, but a note of excellency and rarity; whereof the forms are, Where shall you find such a concurrence? Great but not complete; for it seems a less work of nature or fortune, to make any thing in his kind greater than ordinary, than to make a strange composition. Yet if it be narrowly considered, this colour will be reprehended or encountered, by imputing to all excellencies in compositions a kind of poverty, or at least a casualty or jeopardy; for from that which is excellent in greatness, somewhat may be taken, or there may be a decay, and yet sufficient left; but from that which hath his price in composition if you take away any thing, or any part do fail, all is disgrace.

VI.

*Cujus privatio bona, malum; cuius privatio mala, bonum.*

THE forms to make it conceived, that that was evil which is changed for the better, are, He that is in hell thinks there is no other heaven. *Satis quærens*, Acorns were good till bread was found, *etc.* And of the other side, the forms to make it conceived, that that was good which was changed for the worse, are, *Bona magis carendo quam fruendo sentimus*: *Bona a tergo formosissima*: Good things never appear in their full beauty, till they turn their back and be going away, *etc.*

The reprehension of this colour is, that the good or evil which is removed, may be esteemed good or evil comparatively, and not positively or simply. So that if the privation be good, it follows not the former condition was evil, but less good; for the flower or blossom is a positive good, although the remove of it to give place to the fruit, be a comparative good. So in the tale of Æsop, when the old fainting man in the heat of the day cast down his burthen, and called for Death; and when Death came to know his will with him, said, it was for nothing but to help him up with his burden again: it doth not follow, that because death, which was the privation of the burden, was ill, therefore the burden was good. And in this part, the ordinary form of *malum necessarium* aptly reprehendeth this colour; for *privatio mali necessarii est mala*, and yet that doth not convert the nature of the necessary evil, but it is evil.

Again,



## COLOURS OF GOOD AND EVIL.

Again, it cometh sometimes to pass, that there is an equality in the change of privation, and as it were a *dilemma boni*, or a *dilemma mali*: so that the corruption of the one good, is a generation of the other. *Sorti pater acquus utriusque est*: and contrary, the remedy of the one evil is the occasion and commencement of another, as in Scylla and Charybdis.

## VII.

*Quod bono vicinum, bonum; quod a bono remotum, malum.*

SUCH is the nature of things, that things contrary, and distant in nature and quality, are also severed and disjoined in place; and things like and consenting in quality, are placed, and as it were quartered together: for, partly in regard of the nature to spread, multiply, and infect in similitude; and partly in regard of the nature to break, expel, and alter that which is disagreeable and contrary, most things do either associate, and draw near to themselves the like, or at least assimilate to themselves that which approacheth near them, and do also drive away, chase and exterminate their contraries. And that is the reason commonly yielded, why the middle region of the air should be coldest, because the sun and stars are either hot by direct beams, or by reflexion. The direct beams heat the upper region, the reflected beams from the earth and seas, heat the lower region. That which is in the midst, being farthest distant in place from these two regions of heat, are most distant in nature, that is, coldest; which is that they term cold or hot *per antiphrasim*, that is, envioning by contraries: which was pleasantly taken hold of by him that said, that an honest man, in these days, must needs be more honest than in ages heretofore, *propter antiphrasim*, because the shutting of him in the midst of contraries, must needs make the honesty stronger and more compact in itself.

The reprehension of this colour is: first, many things of amplitude in their kind do as it were engross to themselves all, and leave that which is next them most destitute: as the shoots or under-wood, that grow near a great and spread tree, is the most pined and shrubby wood of the field, because the great tree doth deprive and deceive them of sap and nourishment; so he saith well, *divitis servi maxime servi*: and the comparison was pleasant of him, that compared courtiers attendant in the courts of princes without great place or office, to fasting-days, which were next the holy-days, but otherwise were the leanest days in all the week.

Another reprehension is, that things of greatness and predominancy, though they do not extenuate the things adjoining in substance, yet they drown them and obscure them in shew and appearance; and therefore the astronomers say, That whereas in all other planets conjunction is the perfectest amity; the sun contrawise is good by aspect, but evil by conjunction.

A third reprehension is, because evil approacheth to good sometimes for concealment, sometimes for protection; and good to evil for conversion and reformation. So hypocrits draweth near to religion for covert, and hiding itself; *sapienter vitium proximate boni*: and sanctuary men, which were commonly indurate men and malefactors, were wont to be nearest to priests and prelates, and holy men; for the majesty of good things is such, as the confines of them are reverend. On the other side, our Saviour, charged with nearness of publicans and rioters, said, *the physician approacheth the sick, rather than the whole*.

## VIII.

*Quod quis culpa sua contraxit, majus malum; quod ab externis imponitur, minus malum.*

THE reason is, because the sting and remorse of the mind accusing itself doubleth all adversity: contrariwise, the considering and recording inwardly, that a man is clear and free from fault and just imputation, doth temper outward calamities. For if the evil be in the sense, and in the conscience both, there is a gemination of it; but if evil be in the one, and comfort in the other, it is a kind of compensation: so the poets in tragedies do make the most passionate lamentation,



mentation, and those that forerun final despair, to be accusing, questioning, and torturing of a man's life.

*Seque unum clamat causamque caputque malorum.*

And contrariwise, the extremities of worthy persons have been annihilated in the consideration of their own good deserving. Besides, when the evil cometh from without, there is left a kind of evaporation of grief, if it come by human injury, either by indignation, and meditating of revenge from ourselves, or by expecting or fore-conceiving that Nemesis and retribution will take hold of the authors of our hurt: or if it be by fortune or accident, yet there is left a kind of expostulation against the divine powers;

*Atque deos atque astra vocat crudelia mater.*

But where the evil is derived from a man's own fault, there all strikes deadly inwards, and suffocatheth.

The reprehension of this colour is, first in respect of hope, for reformation of our faults is *in nostra potestate*; but amendment of our fortune simply is not. Therefore Demosthenes, in many of his orations, saith thus to the people of Athens: "That which having regard to the time past, is the worst point and circumstance of all the rest; that as to the time to come is the best: what is that? Even this, that by your sloth, irresolution and misgovernment, your affairs are grown to this declination and decay. For had you used and ordered your means and forces to the best, and done your parts every way to the full, and, notwithstanding, your matters should have gone backward in this manner as they do, there had been no hope left of recovery or reparation; but since it hath been only by our own errors," *etc.* So Epictetus in his degrees saith, The worst state of man is to accuse external things, better that to accuse a man's self, and best of all to accuse neither.

Another reprehension of this colour, is in respect of the well bearing of evils wherewith a man can charge no body but himself, which maketh them the less.

*Leve fit quod bene fertur onus.*

And therefore many natures that are either extremely proud, and will take no fault to themselves, or else very true and cleaving to themselves (when they see the blame of any thing that falls out ill must light upon themselves) have no other shift but to bear it out well, and to make the least of it; for as we see when sometimes a fault is committed, and before it be known who is to blame, much ado is made of it; but after, if it appear to be done by a son, or by a wife, or by a near friend, then it is light made of: so much more when a man must take it upon himself. And therefore it is commonly seen, that women that marry husbands of their own choosing against their friends consents, if they be never so ill used, yet you shall seldom see them complain, but set a good face on it.

#### IX.

*Quod opera et virtute nostra partum est, majus bonum; quod ab alieno beneficio vel ab indulgentia fortunae delatum est, minus bonum.*

THE reasons are, first, the future hope, because in the favours of others, or the good winds of fortune, we have no state or certainty; in our endeavours or abilities we have. So as when they have purchased us one good fortune, we have them as ready, and better edged, and inured to procure another.

The forms be: You have won this by play, You have not only the water, but you have the receipt, you can make it again if it be lost, *etc.*

Next, because these properties which we enjoy by the benefit of others, carry with them an obligation, which seemeth a kind of burden; whereas the other, which derive from ourselves, are like the freest patents, *absque aliquo inde reddendo*; and if they proceed from fortune or providence, yet they seem to touch us secretly with the reverence of the divine powers, whose favours we taste, and therefore work a kind of religious fear and restraint: whereas in the other kind, that comes to pass which the prophet speaketh, *lactantur et exultant, immolant plagis suis, et sacrificant reti suo.*

VOL. I.

5 C

Thirdly,



## COLOURS OF GOOD AND EVIL.

Thirdly, Because that which cometh unto us without our own virtue, yielded not that commendation and reputation; for actions of great felicity may draw wonder, but praise less; as Cicero said to Caesar, *Quae mirermur, habemus; quae laudemus, expectamus.*

Fourthly, Because the purchases of our own industry are joined commonly with labour and strife, which gives an edge and appetite, and makes the fruition of our desires more pleasant. *Suavis cibis a venatu.*

On the other side, there be four counter colours to this colour, rather than reprehensions, because they be as large as the colour itself. First, because felicity seemeth to be a character of the favour and love of the divine powers, and accordingly worketh both confidence in ourselves, and respect and authority from others. And this felicity extendeth to many casual things, whereunto the care or virtue of man cannot extend, and therefore seemeth to be a larger good; as when Caesar said to the sailor, *Caesarem portas et fortunam ejus*; if he had said, *et virtutem ejus*, it had been small comfort against a tempest, otherwise than if it might seem upon merit to induce fortune.

Next, whatsoever is done by virtue and industry, seems to be done by a kind of habit and art, and therefore open to be imitated and followed; whereas felicity is inimitable: so we generally see, that things of nature seem more excellent than things of art, because they be inimitable: for, *quod imitabile est, potentia quadam vulgatum est.*

Thirdly, Felicity commendeth those things which come without our own labour; for they seem gifts, and the other seem pennyworths: whereupon Plutarch saith elegantly of the acts of Timoleon, who was so fortunate, compared with the acts of Agellaus and Epaminondas; that they were like Homer's verses, they ran so easily and so well. And therefore it is the word we give unto poetry, terming it a happy vein, because facility seemeth ever to come from happiness.

Fourthly, This same *praeter spem, vel praeter expectatum*, doth increase the price and pleasure of many things; and this cannot be incident to those things that proceed from our own care and compass.

## X.

*Gradus privationis major videtur, quam gradus diminutionis; et rursus gradus incrementis major videtur, quam gradus incrementi.*

**I**T is a position in the mathematicks, that there is no proportion between somewhat and nothing, therefore the degree of nullity and quiddity or act, seemeth larger than the degrees of increase and decrease; as to a *monoculus* it is more to lose one eye, than to a man that hath two eyes. So if one have lost divers children, it is more grief to him to lose the last, than all the rest; because he is *spes gregis*. And therefore Sibylla when she brought her three books, and had burned two, did double the whole price of both the other, because the burning of that had been *gradus privationis*, and not *diminutionis*.

This colour is reprehended first in those things, the use and service whereof resteth in sufficiency, competency, or determinate quantity: as if a man be to pay one hundred pounds upon a penalty, it is more to him to want twelve pence, than after that twelve pence supposed to be wanting, to want ten shillings more; so the decay of a man's estate seems to be most touched in the degree, when he first grows behind, more than afterwards, when he proves nothing worth. And hereof the common forms are *Sera in fundo parsimonia*, and As good never a whit, as never the better, *etc.* It is reprehended also in respect of that notion, *Corruptio unius, generatio alterius*: so that *gradus privationis* is many times less matter, because it gives the cause and motive to some new course. As when Demosthenes reprehended the people, for harkening to the conditions offered by king Philip, being not honourable nor equal, he saith they were but ailments of their sloth and weakness, which if they were taken away, necessity would teach them stronger resolutions. So doctor Hector was wont to say to the dames of London, when they complained they were they could not tell how, but yet they could not endure to take any medicine; he would tell them, their way was only to be sick, for then they would be glad to take any medicine.



Thirdly, This colour may be reprehended, in respect that the degree of decrease is more sensitive than the degree of privation, for in the mind of man *gradus diminutionis* may work a wavering between hope and fear, and so keep the mind in suspense, from settling and accommodating in patience and resolution. Hereof the common forms are, Better eye out, than always ache; Make or mar, *etc.*

For the second branch of this colour, it depends upon the same general reason: hence grew the common place of extolling the beginning of every thing: *dimidium facti qui bene coepit habet*. This made the astrologers so idle as to judge of a man's nature and destiny, by the constellation of the moment of his nativity or conception. This colour is reprehended, because many inceptions are but, as Epicurus termeth them, *tentamenta*, that is, imperfect offers and essays, which vanish and come to no substance without an iteration: so as in such cases the second degree seems the worthiest, as the body-horse in the cart, that draweth more than the fore-horse. Hereof the common forms are, The second blow makes the fray, The second word makes the bargain; *Alter malo principium dedit, alter modum absumit, etc.* Another reprehension of this colour is in respect of defatigation, which makes perseverance of greater dignity than inception, for chance or instinct of nature may cause inception; but settled affection, or judgment, maketh the continuance.

Thirdly, This colour is reprehended in such things, which have a natural course and inclination contrary to an inception. So that the inception is continually evacuated and gets no start; as in the common form, *Non progredi est regredi, Qui non proficit deficit*, running against the hill; rowing against the stream, *etc.* For if it be with the stream or with the hill, then the degree of inception is more than all the rest.

Fourthly, This colour is to be understood of *gradus inceptionis a potentia ad actum, comparatus cum gradu ab actu ad incrementum*. For otherwise *major videtur gradus ab impotentia ad potentiam, quam a potentia ad actum*.





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ESSAYS

OR

COUNSELS

CIVIL and MORAL.

VOL. I,

5 D



TO Mr. ANTHONY BACON his dear Brother.

*Loving and beloved brother,*

**I** Do now like some that have an orchard ill neighboured, that gather their fruit before it is ripe, to prevent stealing. These fragments of my conceits were going to print; to labour the stay of them had been troublesome, and subject to interpretation; to let them pass had been to adventure the wrong they might receive by untrue copies, or by some garnishment which it might please any that should set them forth to bestow upon them. Therefore I held it best discretion to publish them myself, as they passed long ago from my pen, without any further disgrace than the weakness of the author. And as I did ever hold, there might be as great a vanity in retiring and withdrawing mens conceits (except they be of some nature) from the world, as in obtruding them; so in these particulars I have played myself the inquisitor, and find nothing to my understanding in them contrary or infectious to the state of religion, or manners, but rather (as I suppose) medicinal. Only I disliked now to put them out, because they will be like the late new half-pence, which though the silver were good, yet the pieces were small. But since they would not stay with their master, but would needs travel abroad, I have preferred them to you that are next myself; dedicating them, such as they are, to our love, in the depth whereof (I assure you) I sometimes with your infirmities translated upon myself, that her majesty might have the service of so active and able a mind; and I might be with excuse confined to these contemplations and studies, for which I am fittest: so commend I you to the preservation of the divine Majesty.

From my chamber at Grays-Inn,  
this 30th of January 1597.

*Your entire loving brother,*

FRAN. BACON.

TO my loving Brother Sir JOHN CONSTABLE, Kt.

**M**Y last essays I dedicated to my dear brother, Mr. Anthony Bacon, who is with God. Looking amongst my papers this vacation, I found others of the same nature: which if I myself shall not suffer to be lost, it seemeth the world will not, by the often printing of the former. Missing my brother, I found you next; in respect of bond both of near alliance, and of strait friendship and society, and particularly of communication in studies: wherein I must acknowledge myself beholden to you. For as my business found rest in my contemplations, so my contemplations ever found rest in your loving conference and judgment. So willing you all good, I remain,

*Your loving brother and friend,*

1612.

FRAN. BACON.

TO the right honourable, my very good lord, the duke of  
BUCKINGHAM, his grace, lord high admiral of England.

*Excellent Lord,*

**S**OLOMON says, *A good name is as a precious ointment*; and I assure myself such will your grace's name be with posterity. For your fortune and merit both have been eminent: and you have planted things that are like to last. I do now publish my *Essays*; which of all my other works have been most current: for that, as it seems, they come home to mens business and bosoms. I have enlarged them both in number and weight; so that they are indeed a new work. I thought it therefore agreeable to my affection and obligation to your grace, to prefix your name before them both in English and in Latin: For I do conceive, that the Latin volume of them (being in the universal language) may last as long as books last. My *Insurrection* I dedicated to the king: my *History of Henry the seventh* (which I have now also translated into Latin) and my portions of *Natural History*, to the prince: and these I dedicate to your grace; being of the best fruits, that by the good increase which God gives to my pen and labours I could yield. God lead your grace by the hand.

1625.

*Your grace's most obliged and faithful servant,*

FR. ST. ALBAN.



## Essays Civil and Moral.

### I. OF TRUTH.

WHAT is truth ? said jesting Pilate ; and would not stay for an answer. Certainly there be that delight in giddiness ; and count it a bondage to fix a belief ; affecting free-will in thinking, as well as in acting. And though the sects of philosophers of that kind be gone, yet there remain certain discouraging wits, which are of the same veins, though there be not so much blood in them, as was in those of the ancients. But it is not only the difficulty and labour which men take in finding out of truth ; nor again, that when it is found, it imposeth upon men's thoughts ; that doth bring lyes in favour : but a natural, though corrupt love of the lye itself. One of the later school of the Grecians examineth the matter, and is at a stand to think what should be in it, that men should love lyes ; where neither they make for pleasure, as with poets ; nor for advantage, as with the merchant ; but for the lye's sake. But I cannot tell : this same truth is a naked and open day-light, that doth not shew the masques, and mummeries, and triumphs of the world, half so flatly and daintily, as candle-lights. Truth may perhaps come to the price of a pearl, that sheweth best by day : but it will not rise to the price of a diamond or carbuncle, that sheweth best in varied lights. A mixture of a lye doth ever add pleasure. Doth any man doubt, that if there were taken out of mens minds, vain opinions, flattering hopes, false valuations, imaginations as one would, and the like ; but it would leave the minds of a number of men, poor shrunken things ; full of melancholy and indisposition, and unpleasing to themselves ? One of the fathers, in great severity, called poesy, *vinum daemonum* ; because it filleth the imagination, and yet it is but with the shadow of a lye. But it is not the lye that passeth through the mind, but the lye that sinketh in, and settleth in it, that doth the hurt, such as we spake of before. But howsoever these things are thus in mens depraved judgments and affections, yet truth, which only doth judge itself, teacheth, that the enquiry of truth, which is the love-making, or wooing of it ; the knowledge of truth, which is the presence of it ; and the belief of truth, which is the enjoying of it ; is the sovereign good of human nature. The first creature of God, in the works of the days, was the light of the sense ; the last was the light of reason ; and his sabbath work ever since, is the illumination of his Spirit. First he breathed light upon the face of the matter, or chaos ; then he breathed light into the face of man ; and still he breatheth and inspirith light into the face of his chosen. The poet that beautified the sect, that was otherwise inferior to the rest, saith yet excellently well : " It is a pleasure " to stand upon the shore, and to see ships tost upon the sea : a pleasure to stand " in the window of a castle, and to see a battle, and the adventures thereof be- " low : but no pleasure is comparable to the standing upon the vantage ground " of truth (a hill not to be commanded, and where the air is always clear and " serene :) and to see the errors, and wanderings, and mists, and tempests, in the " vale below : " so always, that this prospect be with pity, and not with swelling or pride. Certainly, it is heaven upon earth, to have a man's mind move in charity, rest in providence, and turn upon the poles of truth.

To pass from theological and philosophical truth, to the truth of civil business ; it will be acknowledged, even by those that practise it not, that clear and round dealing is the honour of man's nature ; and that mixture of falsehood is like alloy in coin of gold and silver ; which may make the metal work the better, but it embatheth it. For these winding and crooked courses are the goings of the ser-  
pent ;



pent; which goeth basely upon the belly, and not upon the feet. There is no vice that doth so cover a man with shame, as to be found false and perfidious. And therefore Montagne saith prettily, when he enquired the reason, why the word of the lye should be such a disgrace, and such an odious charge? Saith he, “If it be well weighed, to say that a man lyeth, is as much as to say, that he “is brave towards God, and a coward towards men. For a lye faces God, and “shrinks from man.” Surely the wickedness of falsehood, and breach of faith, cannot possibly be so highly exprest, as in that it shall be the last peal, to call the judgments of God upon the generations of men: it being foretold, that when Christ cometh, *he shall not find faith upon the earth.*

## II. Of DEATH.

**M**EN fear death, as children fear to go in the dark: and as that natural fear in children is increased with tales, so is the other. Certainly, the contemplation of death, as the wages of sin, and passage to another world, is holy and religious; but the fear of it, as a tribute due unto nature, is weak. Yet in religious meditations, there is sometimes mixture of vanity, and of superstition. You shall read in some of the friars books of mortification, that a man should think with himself, what the pain is, if he have but his finger’s end pressed, or tortured; and thereby imagine what the pains of death are, when the whole body is corrupted and dissolved; when many times death passeth with less pain, than the torture of a limb: for the most vial parts are not the quickest of sense. And by him that spake only as a philosopher, and natural man, it was well said; *Pompa mortis magis terret, quam mors ipsa.* Groans, and convulsions, and a discoloured face, and friends weeping, and blacks, and obsequies, and the like, shew death terrible. It is worthy the observing, that there is no passion in the mind of man so weak, but it mates and masters the fear of death: and therefore death is no such terrible enemy, when a man hath so many attendants about him, that can win the combat of him. Revenge triumphs over death; love slights it; honour aspieth to it; grief flieth to it; fear pre-occupateth it; nay, we read, after Otho the emperor had slain himself, pity (which is the tenderest of affections) provoked many to die, out of mere compassion to their sovereign, and as the truest sort of followers. Nay, Seneca adds, niceness and satiety; *cogita quamdiu eadem feceris; mori velle, non tantum fortis, aut miser, sed etiam fastidiosus potest.* A man would die, though he were neither valiant nor miserable, only upon a weariness to do the same thing so oft over and over. It is no less worthy to observe, how little alteration in good spirits, the approaches of death make; for they appear to be the same men till the last instant. Augustus Cæsar died in a compliment; *Livia, conjugii nostri memori vive, et vale.* Tiberius in dissimulation; as Tacitus saith of him; *Jam Tiberium vires et corpus, non dissimulatio, deserebant.* Vespasian in a jest; sitting upon the stool; *Vt puto Deus suo.* Galba with a sentence; *Feri, si ex re sit populi Romani;* holding forth his neck. Septimius Severus in dispatch; *Adesse, si quid mihi restat agendum:* and the like. Certainly the Stoicks bestowed too much cost upon death, and by their great preparations made it appear more fearful. Better saith he, *qui finem vitae extremum inter munera ponti naturae.* It is as natural to die, as to be born; and to a little infant, perhaps, the one is as painful as the other. He that dies in an earnest pursuit, is like one that is wounded in hot blood; who, for the time, scarce feels the hurt; and therefore a mind fixt and bent upon somewhat that is good, doth avert the dolours of death: but above all, believe it, the sweetest canticle is, *Nunc dimittis;* when a man hath obtained worthy ends and expectations. Death hath this also; that it openeth the gate to good fame, and extinguisheth envy,----*Extinctus amabitur idem.*

## III. Of UNITY IN RELIGION.

**R**ELIGION being the chief band of human society, it is a happy thing, when itself is well contained within the true band of unity. The quarrels and divisions



sions about religion were evils unknown to the heathen. The reason was, because the religion of the heathen consisted rather in rites and ceremonies, than in any constant belief. For you may imagine what kind of faith theirs was, when the chief doctors and fathers of their church were the poets. But the true God hath this attribute, that he is a jealous God; and therefore his worship and religion will endure no mixture, nor partner. We shall therefore speak a few words concerning the unity of the church; what are the fruits thereof; what the bounds; and what the means.

The fruits of unity (next unto the well-pleasing of God, which is all in all) are two; the one towards those that are without the church; the other towards those that are within. For the former; it is certain, that heresies and schisms are of all others the greatest scandals; yea more than corruption of manners: For as in the natural body, a wound, or solution of continuity, is worse than a corrupt humour; so in the spiritual. So that nothing doth so much keep men out of the church, and drive men out of the church, as breach of unity: and therefore, whosoever it cometh to that pass, that one faith, *ecce in deserto*; another faith, *ecce in penetralibus*; that is, when some men seek Christ in the conventicles of hereticks, and others in an outward face of a church, that voice had need continually to sound in mens ears, *nolite exire*, go not out. The doctor of the Gentiles (the propriety of whose vocation drew him to have a special care of those without) saith; *if an heathen come in, and hear you speak with several tongues, will he not say that you are mad?* And, certainly, it is little better, when atheists, and prophane persons, do hear of so many discordant and contrary opinions in religion; it doth avert them from the church, and maketh them *to sit down in the chair of the scorners*. It is but a light thing to be vouched in so serious a manner, but yet it expresseth well the deformity: There is a master of scoffing; that in his catalogue of books of a feigned library sets down this title of a book; "The Morris-dance of Heretiques." For indeed every sect of them hath a diverse posture or cinge by themselves, which cannot but move derision in worldlings and depraved politticks, who are apt to contemn holy things.

As for the fruit towards those that are within, it is peace; which containeth infinite blessings: it establisheth faith; it kindleth charity; the outward peace of the church distilleth into peace of conscience; and it turneth the labours of writing and reading of controversies, into treaties of mortification and devotion.

Concerning the bonds of unity; the true placing of them importeth exceedingly. There appear to be two extremes. For to certain zealots all speech of pacification is odious. *Is it peace, Jesus? What hast thou to do with peace? turn thee behind me.* Peace is not the matter, but following, and party. Contrariwise, certain Laodiceans, and lukewarm persons, think they may accommodate points of religion by middle-ways, and taking part of both, and witty reconclements; as if they would make an arbitrement between God and man. Both these extremes are to be avoided; which will be done, if the league of Christians, penned by our Saviour himself were, in the two cross clauses thereof, soundly and plainly expounded: *he that is not with us is against us*: and again; *he that is not against us is with us*: that is, if the points fundamental, and of substance in religion, were truly discerned and distinguished from points not merely of faith, but of opinion, order, or good intention. This is a thing may seem to many a matter trivial, and done already; but if it were done less partially, it would be embraced more generally.

Of this I may give only this advice, according to my small model. Men ought to take heed of rending God's church by two kinds of controversies. The one is, when the matter of the point controverted is too small and light, not worth the heat and strife about it, kindled only by contradiction. For, as it is noted by one of the fathers, Christ's coat indeed had no seam; but the church's vesture was of divers colours: whereupon he saith, *in veste varietas sit, scissura non sit*; they be two things, unity, and uniformity. The other is, when the matter of the point controverted is great; but it is driven to an over-great subtilty and obscurity; so that it becometh a thing rather ingenious than substantial,



A man that is of judgment and understanding, shall sometimes hear ignorant men differ, and know well within himself, that those which so differ mean one thing, and yet they themselves would never agree. And if it come so to pass in that distance of judgment which is between man and man; shall we not think that God above, that knows the heart, doth not discern that frail men, in some of their contradictions, intend the same thing, and accepteth of both? The nature of such controversies is excellently expressed by St. Paul, in the warning and precept that he giveth concerning the same, *devota profanus vocum novitates, et oppositiones falsi nominis scientiae*. Men create oppositions which are not; and put them into new terms so fixed, as, whereas the meaning ought to govern the term, the term in effect governeth the meaning. There be also two false peaces, or unities; the one when the peace is grounded but upon an implicit ignorance; for all colours will agree in the dark: the other, when it is pieced up upon a direct admission of contraries in fundamental points. For truth and falsehood, in such things, are like the iron and clay in the toes of Nebuchadnezzar's image; they may cleave, but they will not incorporate.

Concerning the means of procuring unity; men must beware, that in the procuring or muniting of religious unity, they do not dissolve and deface the laws of charity, and of human society. There be two swords amongst Christians, the spiritual and temporal; and both have their due office and place in the maintenance of religion. But we may not take up the third sword, which is Mahomet's sword, or like unto it; that is, to propagate religion by wars, or by sanguinary persecutions, to force consciences; except it be in cases of overt scandal, blasphemy, or intermixture of practice against the state; much less to nourish seditions; to authorize conspiracies and rebellions; to put the sword into the peoples hands, and the like, tending to the subversion of all government, which is the ordinance of God. For this is but to dash the first table against the second; and so to consider men as Christians, as we forget that they are men. Lucretius the poet, when he beheld the act of Agamemnon, that could endure the sacrificing of his own daughter, exclaimed;

*Tantum religio potuit suadere malorum.*

What would he have said, if he had known of the massacre in France, or the powder-treason of England? He would have been seven times more Epicure and atheist than he was: for as the temporal sword is to be drawn with great circumspection, in cases of religion; so it is a thing monstrous to put it into the hands of the common people. Let that be left unto the anabaptists, and other furies. It was great blasphemy, when the devil said, *I will ascend and be like the Highest*; but it is greater blasphemy to personate God, and bring him in saying; "I will descend, and be like the prince of darkness." And what is it better to make the cause of religion to descend to the cruel and execrable actions of murdering princes, butchery of people, and subversion of states and governments? Surely, this is to bring down the Holy Ghost, instead of the likeness of a dove, in the shape of a vulture or raven: and to set, out of the bark of a christian church, a flag of a bark of pirates and assassins. Therefore it is most necessary, that the church by doctrine and decree; princes by their sword; and all learnings, both christian and moral, as by their mercury rod; do damn and send to hell for ever those facts and opinions, tending to the support of the same; as hath been already in good part done. Surely in counsels concerning religion, that counsel of the apostle would be prefixed; *Ira hominis non implet iustitiam Dei*. And it was a notable observation of a wise father, and no less ingeniously confessed; That those which held and persuaded persure of consciences, were commonly interested therein themselves, for their own ends.

#### IV. Of REVENGE.

REVENGE is a kind of wild justice, which the more man's nature runs to, the more ought law to weed it out. For as for the first wrong, it doth but offend the law; but the revenge of that wrong putteth the law out of office. Certainly in taking revenge, a man is but even with his enemy; but in passing it



it over, he is superior : for it is a prince's part to pardon. And Solomon, I am sure, saith, *It is the glory of a man to pass by an offence*. That which is past is gone and irrevocable, and wise men have enough to do with things present and to come : therefore they do but trifle with themselves, that labour in past matters. There is no man doth a wrong for the wrong's sake ; but thereby to purchase himself profit, or pleasure, or honour, or the like. Therefore why should I be angry with a man for loving himself better than me ? And if any man should do wrong, merely out of ill nature, why ? yet it is but like the thorn, or briar, which prick and scratch, because they can do no other. The most tolerable sort of revenge is for those wrongs which there is no law to remedy : but then let a man take heed the revenge be such, as there is no law to punish ; else a man's enemy is still before-hand, and it is two for one. Some, when they take revenge, are desirous the party should know whence it cometh : this is the more generous. For the delight seemeth to be not so much in doing the hurt, as in making the party repent : but base and crafty cowards are like the arrow that flieth in the dark. Cosmus, duke of Florence, had a desperate saying against perfidious or neglecting friends, as if those wrongs were unpardonable. " You shall read (saith he) that we are commanded to forgive our enemies ; but you never read, that we are commanded to forgive our friends." But yet the spirit of Job was in a better tune ; *Shall we (saith he) take good at God's hands, and not be content to take evil also ?* And so of friends in a proportion. This is certain, that a man that studieth revenge, keeps his own wounds green, which otherwise would heal, and do well. Publick revenges are for the most part fortunate ; as that for the death of Cæsar ; for the death of Pertinax ; for the death of Henry the third of France ; and many more : but in private revenges it is not so ; nay rather, vindicative persons live the life of witches ; who as they are mischievous, so end they unfortunate.

### V. Of ADVERSITY.

IT was an high speech of Seneca (after the manner of the Stoicks) that the good things which belong to prosperity are to be wished, but the good things that belong to adversity are to be admired : *Bona rerum secundarum optabilia, adversarum mirabilia*. Certainly if miracles be the command over nature, they appear most in adversity. It is yet a higher speech of his than the other (much too high for a heathen) It is true greatness, to have in one the frailty of a man, and the security of a God : *Vere magnum, habere fragilitatem hominis, securitatem Dei*. This would have done better in poetry, where transcendencies are more allowed. And the poets indeed have been busy with it ; for it is in effect the thing which is figured in that strange fiction of the ancient poets, which seemeth not to be without mystery ; nay, and to have some approach to the state of a Christian : that Hercules, when he went to unbind Prometheus (by whom human nature is represented) sailed the length of the great ocean in an earthen pot or pitcher ; lively describing christian resolution, that saileth in the frail bark of the flesh through the waves of the world. But to speak in a mean : the virtue of prosperity, is temperance ; the virtue of adversity, is fortitude ; which in morals is the more heroical virtue. Prosperity is the blessing of the Old Testament ; adversity is the blessing of the New, which carrieth the greater benediction, and the clearer revelation of God's favour. Yet, even in the Old Testament, if you listen to David's harp, you shall hear as many herse-like airs, as carols : and the pencil of the Holy Ghost hath laboured more in describing the afflictions of Job, than the felicities of Solomon. Prosperity is not without many fears and distastes ; and adversity is not without comforts and hopes. We see in needle-works and embroideries, it is more pleasing to have a lively work upon a sad and solemn ground, than to have a dark and melancholy work upon a lightsome ground : judge therefore of the pleasure of the heart by the pleasure of the eye. Certainly virtue is like precious odours, most fragrant when they are incensed, or crushed ; for prosperity doth best discover vice, but adversity doth best discover virtue.

### VI.



VI. *Of Simulation and Dissimulation.*

**D**ISSIMULATION is but a faint kind of policy, or wisdom; for it asketh a strong wit, and a strong heart, to know when to tell truth, and to do it.

Therefore it is the weaker sort of politicians that are the great dissemblers. Tacitus saith, Livia sortcd well with the arts of her husband, and dissimulation of her son; attributing arts or policy to Augustus, and dissimulation to Tiberius. And again, when Mucianus encourageth Vespasian to take arms against Vitellius, he saith; *We rise not against the piercing judgment of Augustus, nor the extreme caution or closeness of Tiberius.* These properties of arts or policy, and dissimulation or closeness, are indeed habits and faculties several, and to be distinguished. For if a man have that penetration of judgment as he can discern what things are to be laid open, and what to be secreted, and what to be shewed at half lights, and to whom and when (which indeed are arts of state, and arts of life, as Tacitus well calleth them) to him a habit of dissimulation is a hindrance and a poverty. But if a man cannot obtain to that judgment, then it is left to him, generally, to be close and a dissembler. For where a man cannot chuse, or vary in particulars, there it is good to take the safest and wariest way in general; like the going softly by one that cannot well see. Certainly the ablest men that ever were, have had all an openness and frankness of dealing, and a name of certainty and veracity; but then they were like horses well managed; for they could tell passing well, when to stop or turn: and at such times, when they thought the case indeed required dissimulation, if then they used it, it came to pass, that the former opinion spread abroad of their good faith and clearness of dealing, made them almost invisible.

There be three degrees of this hiding and veiling of a man's self. The first, closeness, reservation, and secrecy, when a man leaveth himself without observation, or without hold to be taken, what he is. The second, dissimulation in the negative, when a man lets fall signs and arguments, that he is not that he is. And the third, simulation in the affirmative, when a man industriously and expressly feigns and pretends to be that he is not.

For the first of these, secrecy; it is indeed the virtue of a confessor; and assuredly the secret man heareth many confessions; for who will open himself to a blab or a babler? but if a man be thought secret, it inviteth discovery; as the more close air sucketh in the more open: and as in confession the revealing is not for worldly use, but for the ease of a man's heart; so secret men come to knowledge of many things in that kind; while men rather discharge their minds, than impart their minds. In few words, mysteries are due to secrecy. Besides (to say truth) nakedness is uncomely, as well in mind as body; and it addeth no small reverence to mens manners and actions, if they be not altogether open. As for talkers and futile persons, they are commonly vain and credulous withal. Therefore that talketh what he knoweth, will also talk what he knoweth not. Therefore set it down, that an habit of secrecy is both politick and moral. And in this part it is good, that a man's face give his tongue leave to speak. For the discovery of a man's self by the tracts of his countenance is a great weakness and betraying; by how much it is many times more marked and believed than a man's words.

For the second, which is dissimulation; it followeth many times upon secrecy, by a necessity: so that he that will be secret must be a dissembler in some degree. For men are too cunning to suffer a man to keep an indifferent carriage between both, and to be secret, without swaying the balance on either side. They will so beset a man with questions, and draw him on, and pick it out of him, that, without an absurd silence, he must shew an inclination one way; or if he do not, they will gather as much by his silence as by his speech. As for equivocations, or oraculous speeches, they cannot hold out long. So that no man can be secret, except he give himself a little scope of dissimulation; which is as it were but the skirts or train of secrecy.

But for the third degree, which is simulation and false profession; that I hold  
more



more culpable and less politick, except it be in great and rare matters. And therefore a general custom of simulation (which is this last degree) is a vice rising either of a natural falseness, or fearfulness; or of a mind that hath some main faults; which because a man must needs disguise, it maketh him practise simulation in other things, lest his hand should be out of use.

The great advantages of simulation and dissimulation are three. First, to lay asleep opposition, and to surprize. For where a man's intentions are published, it is an alarm to call up all that are against them. The second is, to reserve to a man's self a fair retreat: for if a man engage himself by a manifest declaration, he must go through, or take a fall. The third is, the better to discover the mind of another. For to him that opens himself, men will hardly shew themselves adverse; but will (fair) let him go on, and turn their freedom of speech to freedom of thought. And therefore it is a good shrewd proverb of the Spaniard, Tell a lye, and find a troth. As if there were no way of discovery but by simulation. There be also three disadvantages to set it even. The first, that simulation and dissimulation commonly carry with them a shew of fearfulness, which in any business doth spoil the feathers of round flying up to the mark. The second, that it puzzleth and perplexeth the conceits of many, that perhaps would otherwise co-operate with him; and makes a man walk, almost alone, to his own ends. The third and greatest is, that it depriveth a man of one of the most principal instruments for action; which is trust and belief. The best composition and temperature is, to have openness in fame and opinion; secrecy in habit; dissimulation in seasonable use; and a power to feign, if there be no remedy.

## VII. Of PARENTS and CHILDREN.

THE joys of parents are secret; and so are their griefs and fears: they cannot utter the one, nor they will not utter the other. Children sweeten labours; but they make misfortunes more bitter: they increase the cares of life, but they mitigate the remembrance of death. The perpetuity by generation is common to beasts; but memory, merit, and noble works, are proper to men: and surely a man shall see the noblest works and foundations have proceeded from childless men; which have sought to express the images of their minds, where those of their bodies have failed: so the care of posterity is most in them that have no posterity. They that are the first raisers of their houses, are most indulgent towards their children; beholding them as the continuance, not only of their kind, but of their work; and so both children and creatures.

The difference in affection of parents towards their several children is many times unequal; and sometimes unworthy; especially in the mother; as Solomon saith; *A wise son rejoiceth the father; but an ungracious son shames the mother.* A man shall see, where there is a house full of children, one or two of the eldest respected, and the youngest made wantons; but in the midst, some that are as it were forgotten, who many times nevertheless prove the best. The illiberality of parents in allowance towards their children, is an harmful error; makes them base; acquaints them with shifts; makes them sort with mean company; and makes them surfeit more when they come to plenty: and therefore the proof is best when men keep their authority towards their children, but not their purse. Men have a foolish manner (both parents, and schoolmasters, and servants) in creating and breeding an emulation between brothers during childhood, which many times sorteth to discord when they are men, and disturbeth families. The Italians make little difference between children and nephews, or near kinsfolks; but so they be of the lump they care not, though they pass not through their own body. And, to say truth, in nature it is much alike matter; inasmuch that we see a nephew sometimes resembleth an uncle, or a kinsman, more than his own parent; as the blood happens. Let parents chuse betimes the vocations and courses they mean their children should take; for then they are most flexible; and let them not too much apply themselves to the disposition of their children, as thinking they will take best to that which they have most mind to. It is true, that if the affection or aptness of the children be extraordinary, then it is good not to



cross it; but generally the precept is good, *Optimum elige, suave et facile illud faciet consuetudo*. Younger brothers are commonly fortunate, but seldom or never where the elder are disinherited.

### VIII. Of MARRIAGE and SINGLE LIFE.

**H**E that hath wife and children, hath given hostages to fortune; for they are impediments to great enterprizes, either of virtue or mischief. Certainly, the best works, and of greatest merit for the publick, have proceeded from the unmarried, or childless men; which both in affection and means have married and endowed the publick. Yet it were great reason, that those that have children, should have greatest care of future times; unto which they know they must transmit their dearest pledges. Some there are, who though they lead a single life, yet their thoughts do end with themselves, and account future times impertinences. Nay, there are some other, that account wife and children but as bills of charges. Nay more, there are some foolish rich covetous men, that take a pride in having no children, because they may be thought so much the richer. For perhaps they have heard some talk, Such a one is a great rich man; and another except to it, Yea, but he hath a great charge of children: as if it were an abatement to his riches. But the most ordinary cause of a single life is liberty; especially in certain self-pleasing, and humorous minds, which are so sensible of every restraint, as they will go near to think their girdles and garters to be bonds and shackles. Unmarried men are best friends, best masters, best servants, but not always best subjects; for they are light to run away; and almost all fugitives are of that condition. A single life doth well with churchmen: for charity will hardly water the ground, where it must first fill a pool. It is indifferent for judges and magistrates: for if they be facile and corrupt, you shall have a servant five times worse than a wife. For soldiers, I find the generals commonly, in their hortatives, put men in mind of their wives and children. And I think the despising of marriage amongst the Turks, maketh the vulgar soldiers more base. Certainly, wife and children are a kind of discipline of humanity: and single men, though they be many times more charitable, because their means are less exhaust; yet, on the other side, they are more cruel and hard-hearted (good to make severe inquisitors) because their tenderness is not so oft called upon. Grave natures, led by custom, and therefore constant, are commonly loving husbands; as was said of Ulysses, *vetulam suam praeiulit immortalitati*. Chaste women are often proud and froward, as presuming upon the merit of their chastity. It is one of the best bonds, both of chastity and obedience, in the wife, if she think her husband wife; which she will never do, if she find him jealous. Wives are young mens mistresses; companions for middle age; and old mens nurses. So as a man may have a quarrel to marry when he will. But yet he was reputed one of the wise men, that made answer to the question, when a man should marry? "A young man not yet, an elder man not at all." It is often seen, that bad husbands have very good wives; whether it be, that it raiseth the price of their husbands kindness when it comes; or that the wives take a pride in their patience. But this never fails if the bad husbands were of their own chusing, against their friends consent; for then they will be sure to make good their own folly.

### IX. Of ENVY.

**T**HERE be none of the affections which have been noted to fascinate or bewitch, but love and envy. They both have vehement wishes; they frame themselves readily into imaginations and suggestions; and they come easily into the eye; especially upon the presence of the objects; which are the points that conduce to fascination, if any such thing there be. We see likewise, the Scripture calleth envy an *evil eye*: and the astrologers call the evil influences of the stars, evil aspects; so that still there seemeth to be acknowledged in the act of envy, an ejaculation, or irradiation of the eye. Nay, some have been so curious, as to note, that the times when the stroke or percussion of an envious eye doth most hurt, are, when the party envied is beheld in glory or triumph; for that sets an edge



edge upon envy: and besides, at such times, the spirits of the person envied do come forth most into the outward parts, and so meet the blow.

But leaving these curiosities (though not unworthy to be thought on in fit place) we will handle, what persons are apt to envy others; what persons are most subject to be envied themselves; and what is the difference between publick and private envy.

A man that hath no virtue in himself, ever envieth virtue in others. For mens minds will either feed upon their own good, or upon others evil; and who wanteth the one, will prey upon the other; and who is out of hope to attain to another's virtue, will seek to come at even hand, by depressing another's fortune.

A man that is busy and inquisitive, is commonly envious; for to know much of other mens matters cannot be because all that ado may concern his own estate: therefore it must needs be, that he taketh a kind of play-pleasure in looking upon the fortunes of others; neither can he that mindeth but his own business, find much matter for envy. For envy is a gadding passion, and walketh the streets, and doth not keep home: *Non est curiosus, quin idem sit malevolus.*

Men of noble birth are noted to be envious towards new men when they rise: for the distance is altered; and it is like a deceit of the eye, that when others come on, they think themselves go back.

Deformed persons and eunuchs, and old men and bastards, are envious: for he that cannot possibly mend his own case, will do what he can to impair another's; except these defects light upon a very brave and heroical nature, which thinketh to make his natural wants part of his honour; in that it should be said, that an eunuch or a lame man did such great matters; affecting the honour of a miracle; as it was in Nares the eunuch, and Agellius and Tamberlane, that were lame men.

The same is the case of men that rise after calamities and misfortunes; for they are as men fallen out with the times; and think other mens harms a redemption of their own sufferings.

They that desire to excel in too many matters, out of levity and vain-glory, are ever envious, for they cannot want work; it being impossible, but many, in some one of those things, should surpass them. Which was the character of Adrian the emperor, that mortally envied poets, and painters, and artificers, in works wherein he had a vein to excel.

Lastly, near kinsfolks, and fellows in office, and those that have been bred together, are more apt to envy their equals when they are raised. For it doth unbraid unto them their own fortunes; and pointeth at them, and cometh offener into their remembrance, and incurreth likewise more into the note of others; and envy ever redoubleth from speech and fame. Cain's envy was the more vile and malignant towards his brother Abel, because, when his sacrifice was better accepted, there was no body to look on. Thus much for those that are apt to envy.

Concerning those that are more or less subject to envy: First, persons of eminent virtue, when they are advanced, are less envied. For their fortune seemeth but due unto them; and no man envieth the payment of a debt, but rewards, and liberality rather. Again, envy is ever joined with the comparing of a man's self; and where there is no comparison, no envy; and therefore kings are not envied, but by kings. Nevertheless it is to be noted, that unworthy persons are most envied at their first coming in, and afterwards overcome it better; whereas contrariwise, persons of worth and merit are most envied when their fortune continueth long. For by that time, though their virtue be the same, yet it hath not the same lustre; for fresh men grow up that darken it.

Persons of noble blood are less envied in their rising; for it seemeth but right done to their birth: besides, there seemeth not much added to their fortune; and envy is as the sun-beams, that beat hotter upon a bank or steep rising-ground, than upon a flat. And for the same reason, those that are advanced by degrees, are less envied than those that are advanced suddenly, and *per saltum*.

Those that have joined with their honour, great travels, cares, or perils, are less subject to envy: for men think that they earn their honours hardly, and pity them sometimes; and pity ever healeth envy: wherefore you shall observe that the more deep and sober sort of politick persons, in their greatness, are ever bemoan-

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ing themselves what a life they lead, chanting a *Quanta patimur*: not that they feel it so, but only to abate the edge of envy. But this is to be understood of business that is laid upon men, and not such as they call unto themselves: for nothing increaseth envy more, than an unnecessary and ambitious ingrossing of business: and nothing doth extinguish envy more, than for a great person to preserve all other inferior officers in their full rights and preheminences of their places: for by that means there be so many screens between him and envy.

Above all, those are most subject to envy, which carry the greatness of their fortunes in an insolent and proud manner; being never well but while they are shewing how great they are, either by outward pomp, or by triumphing over all opposition or competition: whereas wise men will rather do sacrifice to envy, in suffering themselves sometimes of purpose to be crossed, and overborn in things that do not much concern them. Notwithstanding, so much is true; that the carriage of greatness in a plain and open manner (so it be without arrogancy and vain-glory) doth draw less envy, than if it be in a more crafty and cunning fashion. For in that course a man doth but disavow fortune, and seemeth to be conscious of his own want in worth, and doth but teach others to envy him.

Lastly, to conclude this part; as we said in the beginning, that the act of envy had somewhat in it of witchcraft, so there is no other cure of envy, but the cure of witchcraft: and that is, to remove the lot (as they call it) and to lay it upon another. For which purpose, the wiser sort of great persons bring in ever upon the stage somebody upon whom to derive the envy that would come upon themselves; sometimes upon ministers and servants; sometimes upon colleagues and associates, and the like: and for that turn, there are never wanting some persons of violent and undertaking natures, who, so they may have power and business, will take it at any cost.

Now to speak of publick envy. There is yet some good in publick envy, whereas in private there is none. For publick envy is as an ostracism, that eclipseth men when they grow too great: and therefore it is a bridle also to great ones, to keep them within bounds.

This envy, being in the Latin word *invidia*, goeth in the modern languages by the name of discontentment; of which we shall speak in handling sedition. It is a disease, in a state, like to infection: for as infection spreadeth upon that which is sound, and tainteth it; so when envy is gotten once into a state, it traduceth even the best actions thereof, and turneth them into an ill odour; and therefore there is little won by intermingling of plausible actions: for that doth argue but a weakness and fear of envy, which hurteth so much the more; as it is likewise usual in infections, which if you fear them, you call them upon you.

This publick envy seemeth to beat chiefly upon principal officers or ministers, rather than upon kings and estates themselves. But this is a sure rule, that if the envy upon the minister be great, when the cause of it in him is small; or if the envy be general in a manner upon all the ministers of an estate, then the envy (though hidden) is truly upon the state itself. And so much of publick envy or discontentment, and the difference thereof from private envy, which was handled in the first place.

We will add this in general touching the affection of envy; that of all other affections, it is the most importune and continual: for of other affections there is occasion given but now and then; and therefore it was well said, *Invidia selsus dies non agit*: for it is ever working upon some or other. And it is also noted, that love and envy do make a man pine, which other affections do not, because they are not so continual. It is also the vilest affection, and the most depraved; for which cause it is the proper attribute of the devil, who is called, *the envious man*, that *seareth tares amongst the wheat by night*: as it always cometh to pass, that envy worketh subtilly, and in the dark; and to the prejudice of good things, such as is the wheat.

## X. Of Love.

THE stage is more beholden to love, than the life of man. For as to the stage, love is ever matter of comedies, and now and then of tragedies; but in life it



doth much mischief, sometimes like a firen, sometimes like a fury. You may observe, that amongst all the great and worthy persons (whereof the memory remaineth, either ancient or recent) there is not one that hath been transported to the mad degree of love; which shews, that great spirits, and great business, do keep out this weak passion. You must except nevertheless Marcus Antonius the half partner of the empire of Rome, and Appius Claudius the decemvir and law-giver; whereof the former was indeed a voluptuous man, and inordinate; but the latter was an austere and wise man: and therefore it seems (though rarely) that love can find entrance, not only into an open heart, but also into a heart well fortified, if watch be not well kept. It is a poor saying of Epicurus; *Satis magnum alter alteri theatrum sumus*: as if man, made for the contemplation of heaven, and all noble objects, should do nothing but kneel before a little idol, and make himself subject, though not of the mouth (as beasts are) yet of the eye, which was given him for higher purposes. It is a strange thing to note the excess of this passion; and how it braves the nature and value of things by this, that the speaking in a perpetual hyperbole is comely in nothing but in love. Neither is it merely in the phrase; for whereas it hath been well said, that the arch flatterer, with whom all the petty flatterers have intelligence, is a man's self; certainly the lover is more. For there was never proud man thought so absurdly well of himself, as the lover doth of the person loved; and therefore it was well said, that it is impossible to love, and to be wise. Neither doth this weakness appear to others only, and not to the party loved, but to the loved most of all; except the love be reciproque. For it is a true rule, that love is ever rewarded either with the reciproque, or with an inward and secret contempt: by how much the more men ought to beware of this passion, which loseth not only other things, but itself. As for the other losses, the poet's relation doth well figure them; that he that preferred Helena, quitted the gifts of Juno and Pallas: for whatsoever esteemeth too much of amorous affection, quitteth both riches and wisdom. This passion hath its floods in the very times of weakness, which are, great prosperity, and great adversity; though this latter hath been less observed: both which times kindle love, and make it more fervent, and therefore shew it to be the child of folly. They do best, who, if they cannot but admit love, yet make it keep quarter; and sever it wholly from their serious affairs and actions of life: for if it check once with business, it troubleth mens fortunes, and maketh men that they can no ways be true to their own ends. I know not how, but martial men are given to love: I think it is, but as they are given to wine; for perils commonly ask to be paid in pleasures. There is in man's nature a secret inclination and motion towards love of others, which, if it be not spent upon some one, or a few, doth naturally spread itself towards many, and maketh men become humane and charitable; as it is seen sometimes in friars. Nuptial love maketh mankind; friendly love perfecteth it; but wanton love corrupteth and embaseth it.

## XI. Of GREAT PLACE.

**M**EN in great place are thrice servants; servants of the sovereign or state; servants of fame; and servants of business: so as they have no freedom, neither in their persons, nor in their actions, nor in their times. It is a strange desire, to seek power, and to lose liberty; or to seek power over others, and to lose power over a man's self. The rising unto place is laborious; and by pains men come to greater pains; and it is sometimes base, and by indignities men come to dignities. The standing is slippery, and the regrets is either a downfall, or at least an eclipse, which is a melancholy thing. *Cum non sis qui fueris, non esse cur velis vivere?* Nay, retire men cannot when they would; neither will they when it were reason: but are impatient of privateness, even in age and sickness, which require the shadow: like old townsmen, that will be still sitting at their street door, though thereby they offer age to scorn. Certainly great persons had need to borrow other mens opinions to think themselves happy; for if they judge by their own feeling, they cannot find it; but if they think with themselves what other men think of them, and that other men would fain be as they are, then they are happy as it



## ESSAYS CIVIL AND MORAL.

were by report, when perhaps they find the contrary within. For they are the first that find their own griefs; though they be the last that find their own faults. Certainly men in great fortunes are strangers to themselves, and while they are in the puzzle of business, they have no time to tend their health either of body or mind. *Illi mors gravis incubat, qui notus nimis omnibus, ignotus moritur sibi.* In place there is licence to do good and evil; whereof the latter is a curse; for in evil the best condition is not to will; the second not to can. But power to do good is the true and lawful end of aspiring. For good thoughts (though God accept them) yet towards men are little better than good dreams, except they be put in act; and that cannot be without power and place; as the vantage and commanding ground. Merit and good works is the end of man's motion; and conscience of the same is the accomplishment of man's rest. For if a man can be partaker of God's theater, he shall likewise be partaker of God's rest. *Ex conversus Deus, ut aspiceret opera, quae fecerunt manus suae, vidit quod omnia essent bona nimis;* and then the sabbath. In the discharge of thy place, set before thee the best examples; for imitation is a globe of precepts. And after a time set before thee thine own example; and examine thyself strictly, whether thou didst not best at first. Neglect not also the examples of those, that have carried themselves ill in the same place: not to set off thyself by taxing their memory; but to direct thyself what to avoid. Reform therefore, without bravery or scandal of former times and persons; but yet set it down to thyself, as well to create good precedents, as to follow them. Reduce things to the first institution, and observe wherein and how they have degenerated; but yet ask counsel of both times: of the ancient time what is best; and of the latter time what is fittest. Seek to make thy course regular; that men may know before hand what they may expect: but be not too positive and peremptory; and express thyself well when thou digressest from thy rule. Preserve the right of thy place, but stir not questions of jurisdiction: and rather assume thy right in silence, and *de facto*, than voice it with claims and challenges. Preserve likewise the rights of inferior places; and think it more honour to direct in chief, than to be busy in all. Embrace and invite helps and advices, touching the execution of thy place; and do not drive away such as bring thee information, as medlers; but accept of them in good part. The vices of authority are chiefly four; delays, corruption, roughness, and facility. For delays; give easy access; keep times appointed; go through with that which is in hand; and interlace not business but of necessity. For corruption; do not only bind thine own hands, or thy servants hands, from taking, but bind the hands of suitors also from offering. For integrity used doth the one; but integrity professed, and with a manifest detestation of bribery, doth the other: and avoid not only the fault, but the suspicion. Whosoever is found variable, and changeth manifestly without manifest cause, giveth suspicion of corruption. Therefore always when thou changeth thine opinion or course, profess it plainly, and declare it, together with the reasons that move thee to change; and do not think to steal it. A servant, or a favourite, if he be inward, and no other apparent cause of esteem, is commonly thought but a by-way to close corruption. For roughness; it is a needless cause of discontent; severity breedeth fear, but roughness breedeth hate. Even reproofs from authority ought to be grave, and not taunting. As for facility, it is worse than bribery. For bribes come but now and then; but if importunity, or idle respects lead a man, he shall never be without. As Solomon saith; *to respect persons is not good; for such a man will transgress for a piece of bread.* It is most true that was anciently spoken, A place sheweth the man: and it sheweth some to the better, and some to the worse; *omnium consensu, capax imperii, nisi imperasset,* saith Tacitus of Galba: but of Vespasian he saith; *solus imperantium Vespasianus mutatus in melius.* Though the one was meant of sufficiency, the other of manners and affection. It is an assured sign of a worthy and generous spirit, whom honour amends. For honour is, or should be the place of virtue: and as in nature things move violently to their place, and calmly in their place; so virtue in ambition is violent, in authority settled and calm. All rising to great place is by a winding stair; and if there be factions, it is good to slide a man's self whilst he is in the rising; and to balance himself



himself when he is placed. Use the memory of thy predecessor fairly and tenderly; for if thou dost not, it is a debt will sure be paid when thou art gone. If thou have colleagues, respect them, and rather call them when they look not for it, than exclude them when they have reason to look to be called. Be not too sensible, or too remembering of thy place in conversation, and private answers to suitors; but let it rather be said, When he sits in place he is another man.

## XII. Of BOLDNESS.

**I**T is a trivial grammar-school text, but yet worthy a wise man's consideration. Question was asked of Demosthenes, what was the chief part of an orator? He answered, Action. What next? Action. What next again? Action. He said it that knew it best; and had by nature himself no advantage in that he commended. A strange thing, that that part of an orator, which is but superficial, and rather the virtue of a player, should be placed so high above those other noble parts, of invention, elocution, and the rest: nay almost alone, as if it were all in all. But the reason is plain. There is in human nature, generally, more of the fool than of the wise; and therefore those faculties by which the foolish part of mens minds is taken, are most potent. Wonderful like is the case of boldness in civil business; what first? Boldness. What second and third? Boldness. And yet boldness is a child of ignorance and baseness, far inferior to other parts. But nevertheless it doth fascinate, and bind hand and foot those that are either shallow in judgment, or weak in courage, which are the greatest part; yea, and prevaileth with wise men at weak times: therefore we see it hath done wonders in popular states, but with senates and princes less; and more ever upon the first entrance of bold persons into action, than soon after; for boldness is an ill keeper of promise. Surely, as there are mountebanks for the natural body, so there are mountebanks for the politick body: men that undertake great cures, and perhaps have been lucky in two or three experiments, but want the grounds of science, and therefore cannot hold out: nay, you shall see a bold fellow many times do Mahomet's miracle. Mahomet made the people believe that he would call an hill to him, and from the top of it offer up his prayers for the observers of his law. The people assembled: Mahomet called the hill to come to him again and again; and when the hill stood still he was never a whit abashed, but said, "If the hill will not come to Mahomet, Mahomet will go to the hill." So these men, when they have promised great matters, and failed most shamefully, yet (if they have the perfection of boldness) they will but slight it over, and make a turn, and no more ado. Certainly to men of great judgment bold persons are a sport to behold; nay, and to the vulgar also boldness hath somewhat of the ridiculous: for if absurdity be the subject of laughter, doubt you not but great boldness is seldom without some absurdity: especially it is a sport to see when a bold fellow is out of countenance, for that puts his face into a most shrunken and wooden posture, as needs it must; for in baseness the spirits do a little go and come; but with bold men, upon like occasion, they stand at a stay; like a stale at ches, where it is no mate, but yet the game cannot stir: but this last were fitter for a satire, than for a serious observation. This is well to be weighed, that boldness is ever blind; for it seeth not dangers and inconveniences: therefore it is ill in counsel, good in execution: so that the right use of bold persons is, that they never command in chief, but be seconds, and under the direction of others. For in counsel, it is good to see dangers; and in execution not to see them, except they be very great.

## XIII. Of GOODNESS, and GOODNESS OF NATURE.

**I** Take goodness in this sense, the affecting of the weal of men, which is that the Grecians call *philanthropia*; and the word humanity (as it is used) is a little too light to express it. Goodness I call the habit, and goodness of nature the inclination. This of all virtues and dignities of the mind is the greatest, being the character of the Deity; and without it man is a busy, mischievous,  
wretched



wretched thing, no better than a kind of vermin. Goodness answers to the theological virtue charity, and admits no excels but error. The desire of power in excels caused the angels to fall; the desire of knowledge in excels caused man to fall: but in charity there is no excels; neither can angel or man come in danger by it. The inclination to goodness is imprinted deeply in the nature of man; inasmuch, that if it issue not towards men, it will take unto other living creatures; as it is seen in the Turks, a cruel people, who nevertheless are kind to beasts, and give alms to dogs and birds: inasmuch as, Bubechius reporteth, a christian boy in Constantinople had like to have been stoned for gagging, in a waggoness, a long-billed fowl. Errors indeed in this virtue of goodness or charity may be committed. The Italians have an ungracious proverb; *Tanto buon che val niente*; So good, that he is good for nothing. And one of the doctors of Italy, Nicholas Machiavel, had the confidence to put in writing, almost in plain terms, that the christian faith had given up good men in prey to those that are tyrannical and unjust: which he spake, because indeed there was never law, or sect, or opinion, did so much magnify goodness, as the christian religion doth: therefore to avoid the scandal, and the danger both, it is good to take knowledge of the errors of an habit so excellent. Seek the good of other men, but be not in bondage to their faces, or fancies; for that is but facility or softness, which taketh an honest mind prisoner. Neither give thou Aesop's cock a gem, who would be better pleased, and happier if he had a barley corn. The example of God teacheth the lesson truly; *he sendeth his rain, and maketh his sun to shine upon the just and the unjust*; but he doth not rain wealth, nor shine honour and virtues upon men equally: common benefits are to be communicated with all, but peculiar benefits with choice. And beware, how in making the portraiture thou breakest the pattern; for divinity maketh the love of ourselves the pattern, the love of our neighbours but the portraiture: *Sell all thou hast, and give it to the poor, and follow me*. But sell not all thou hast, except thou come and follow me; that is, except thou have a vocation, wherein thou mayst do as much good with little means as with great: for otherwise, in feeding the streams, thou dryest the fountain. Neither is there only a habit of goodness directed by right reason; but there is in some men, even in nature, a disposition towards it; as on the other side there is a natural malignity. For there be, that in their nature do not affect the good of others. The lighter sort of malignity turneth but to a crossness, or frowardness, or apiness to oppose, or diffidence, or the like; but the deeper sort, to envy, and mere mischief. Such men, in other mens calamities, are as it were in season, and are ever on the loading part; not so good as the dogs that licked Lazarus' sores, but like flies that are still buzzing upon any thing that is raw; *Misanthropi*, that make it their practice to bring men to the bough, and yet have never a tree for the purpose in their gardens, as Timon had. Such dispositions are the very errors of human nature, and yet they are the fittest timber to make great politicks of; like to knee timber, that is good for ships that are ordained to be tossed, but not for building houses that shall stand firm. The parts and signs of goodness are many. If a man be gracious and courteous to strangers, it shews he is a citizen of the world, and that his heart is no island cut off from other lands, but a continent that joins to them. If he be compassionate towards the afflictions of others, it shews that his heart is like the noble tree that is wounded itself, when it gives the balm. If he easily pardons and remits offences, it shews that his mind is planted above injuries, so that he cannot be shot. If he be thankful for small benefits, it shews that he weighs mens minds, and not their trash. But above all, if he have St. Paul's perfection, that he would wish to be an *anathema* from Christ, for the salvation of his brethren, it shews much of a divine nature, and a kind of conformity with Christ himself.

#### XIV. OF NOBILITY.

WE will speak of nobility first as a portion of an estate, then as a condition of particular persons. A monarchy, where there is no nobility at all, is ever a pure



a pure and absolute tyranny; as that of the Turks: for nobility attempts sovereignty, and draws the eyes of the people somewhat aside from the line royal. But for democracies, they need it not; and they are commonly more quiet, and less subject to sedition, than where there are stirrs of nobles; for mens eyes are upon the business, and not upon the persons: or if upon the persons, it is for the business sake, as fittest, and not for flags and pedigree. We see the Switzers last well, notwithstanding their diversity of religion, and of cantons: for utility is their bond, and not respects. The United Provinces of the Low Countries, in their government, excel: for where there is an equality, the consultations are more indifferent, and the payments and tributes more chearful. A great and potent nobility addeth majesty to a monarch, but diminisheth power; and putteth life and spirit into the people, but presseth their fortune. It is well when nobles are not too great for sovereignty, nor for justice; and yet maintained in that height, as the insolency of inferiors may be broken upon them, before it come on too fast upon the majesty of kings. A numerous nobility causeth poverty and inconvenience in a state, for it is a surcharge of expence; and besides, it being of necessity that many of the nobility fall in time to be weak in fortune, it maketh a kind of disproportion between honour and means.

As for nobility in particular persons: it is a reverend thing to see an ancient castle or building not in decay; or to see a fair timber tree sound and perfect; how much more to behold an ancient noble family, which hath stood against the waves and weathers of time? for new nobility is but the act of power, but ancient nobility is the act of time. Those that are first raised to nobility, are commonly more virtuous, but less innocent, than their descendants; for there is rarely any rising, but by a commixture of good and evil arts: but it is reason the memory of their virtues remain to their posterity, and their faults die with themselves. Nobility of birth commonly abateth industry; and he that is not industrious, envieth him that is. Besides, noble persons cannot go much higher; and he that standeth at a stay, when others rise, can hardly avoid motions of envy. On the other side, nobility extinguisheth the passive envy from others towards them, because they are in possession of honour. Certainly kings that have able men of their nobility, shall find ease in employing them, and a better slide into their business: for people naturally bend to them, as born in some sort to command.

## XV. Of SEDITIONS and TROUBLES.

SHEPHERDS of people had need know the kalendars of tempests in state; which are commonly greatest when things grow to equality; as natural tempests are greatest about the *aequinoctia*. And as there are certain hollow blasts of wind, and secret swellings of seas, before a tempest, so are there in states:

*Ille citam caecos inflare tumultus*

*Saepe monet, fraudisque et aperta tumescere bella.*

Libels, and licentious discourses against the state, when they are frequent and open; and in like sort false news often running up and down to the disadvantage of the state, and hastily embraced, are amongst the signs of troubles. Virgil giving the pedigree of Fame, saith, she was sister to the giants.

*Illam Terra parens, ira irritata deorum,*

*Extremam (ut perhibent) Caeco Enceladusque sororem*

*Progenit.*

As if fames were the reliques of seditions past: but they are no less indeed the preludes of seditions to come. Howsoever he noteth it right, that seditious tumults, and seditious fames, differ no more, but as brother and sister, masculine and feminine; especially if it come to that, that the best actions of a state, and the most plausible, and which ought to give greatest contentment, are taken in ill sense and traduced: for that shews the envy great, as Tacitus saith; *conspata magna invidia, seu bene, seu male, gesta premunt*. Neither doth it follow, that because these fames are a sign of troubles, that the suppressing of them with too much severity should be a remedy of troubles. For the despoiling of them many times checks them best; and the going about to stop them, doth but make



a wonder long-lived. Also that kind of obedience which Tacitus speaketh of, is to be held suspected; *Erant in officio, sed tamen qui mallem mandata imperatorum interpretari, quam exequi*; disputing, excusing, cavilling upon mandates and directions, is a kind of shaking off the yoke, and assay of disobedience: especially if in those disputings, they which are for the direction, speak fearfully and tenderly; and those that are against it, audaciously.

Also, as Machiavel noteth well, when princes, that ought to be common parents, make themselves as a party, and lean to a side, it is as a boat that is overthrown by uneven weight on the one side: as was well seen in the time of Henry the third of France; for first, himself entered league for the extirpation of the protestants; and presently after the same league was turned upon himself. For when the authority of princes is made but an accessory to a cause, and that there be other bands that tie faster than the band of sovereignty, kings begin to be put almost out of possession.

Also, when discords, and quarrels, and factions, are carried openly and audaciously, it is a sign the reverence of government is lost. For the motions of the greatest persons in a government ought to be as the motions of the planets under *primum mobile* (according to the old opinion;) which is, that every of them is carried swiftly by the highest motion, and softly in their own motion. And therefore when great ones in their own particular motion move violently, and, as Tacitus expresseth it well, *liberius, quam ut imperantium meminissent*; it is a sign the orbs are out of frame. For reverence is that wherewith princes are girt from God, who threatneth the dissolving thereof; *sestam cingula regum*.

So when any of the four pillars of government are mainly shaken, or weakened (which are religion, justice, counsel, and treasure) men had need to pray for fair weather. But let us pass from this part of predictions (concerning which, nevertheless, more light may be taken from that which followeth) and let us speak first of the materials of seditions; then of the motives of them; and thirdly, of the remedies.

Concerning the materials of seditions. It is a thing well to be considered: for the surest way to prevent seditions (if the times do bear it) is to take away the matter of them. For if there be fuel prepared, it is hard to tell whence the spark shall come, that shall set it on fire. The matter of seditions is of two kinds; much poverty, and much discontentment. It is certain, so many overthrown estates, so many votes for troubles. Lucan noteth well the state of Rome before the civil war;

*Hinc usura vorax, rapidumque in tempore foenus,*

*Hinc concussa fides, et multis utile bellum.*

This same *multis utile bellum* is an assured and infallible sign of a state disposed to seditions and troubles. And if this poverty and broken estate in the better sort, be joined with a want and necessity in the mean people, the danger is imminent and great. For the rebellions of the belly are the worst. As for discontentments, they are, in the politick body, like to humours in the natural, which are apt to gather a preternatural heat, and to enflame. And let no prince measure the danger of them by this; whether they be just, or unjust; for that were to imagine people to be too reasonable; who do often spurn at their own good: nor yet by this; whether the griefs whereupon they rise, be in fact great or small. For they are the most dangerous discontentments, where the fear is greater than the feeling. *Delendi modus, timendi non item*. Besides, in great oppressions, the same things that provoke the patience, do withal mate the courage: but in fears it is not so. Neither let any prince or state be secure concerning discontentments, because they have been often, or have been long, and yet no peril hath ensued; for as it is true that every vapour, or smoke, doth not turn into a storm; so it is nevertheless true, that storms, though they blow over divers times, yet may fall at last; and as the Spanish proverb noteth well, the cord breaketh at the last by the weakest pull.

The causes and motives of seditions are, innovation in religion, taxes, alteration of laws and customs, breaking of privileges, general oppression, advancement of unworthy persons, strangers, dearths, disbanded soldiers, factions grown desperate;



desperate; and whatsoever in offending people, joineth and knitteth them in a common cause.

For the remedies, there may be some general preservatives, whereof we will speak; as for the just cure, it must answer to the particular disease: and so be left to counsel, rather than rule.

The first remedy or prevention, is to remove by all means possible that material cause of sedition, whereof we spake; which is want and poverty in the estate. To which purpose serveth the opening and well balancing of trade; the cherishing of manufactures; the banishing of idleness; the repressing of waste and excess by sumptuary laws; the improvement and husbanding of the soil; the regulating of prices of things vendible; the moderating of taxes and tributes, and the like. Generally it is to be foreseen, that the population of a kingdom (especially if it be not mown down by wars) do not exceed the flock of the kingdom, which should maintain them. Neither is the population to be reckoned only by number: for a smaller number, that spend more, and earn less, do wear out an estate sooner than a greater number that live lower, and gather more. Therefore the multiplying of nobility, and other degrees of quality, in an over proportion to the common people, doth speedily bring a state to necessity: and so doth likewise an overgrown clergy; for they bring nothing to the flock; and in like manner, when more are bred scholars, than preferments can take off.

It is likewise to be remembered, that forasmuch as the increase of any estate must be upon the foreigner (for whatsoever is somewhere gotten is somewhere lost) there be but three things which one nation selleth unto another; the commodity as nature yieldeth it; the manufacture; and the vesture or carriage. So that if these three wheels go, wealth will flow as in a spring tide. And it cometh many times to pass, that *materialiam superabit opus*, that the work and carriage is more worth than the material, and enricheth a state more; as is notably seen in the Low-Country men, who have the best mines above ground in the world.

Above all things good policy is to be used, that the treasure and moneys in a state be not gathered into few hands. For otherwise a state may have a great flock, and yet starve. And money is like muck, not good except it be spread. This is done chiefly by suppressing, or at the least keeping a strait hand upon the devouring trades of usury, ingrossing, great pasturages, and the like.

For removing discontentments, or at least the danger of them: there is in every state (as we know) two portions of subjects, the noblest, and the commonally. When one of these is discontent, the danger is not great; for common people are of slow motion, if they be not excited by the greater sort; and the greater sort are of small strength, except the multitude be apt and ready to move of themselves. Then is the danger, when the greater sort do but wait for the troubling of the waters amongst the meaner, that then they may declare themselves. The poets feign, that the rest of the Gods would have bound Jupiter; which he hearing of, by the counsel of Pallas, sent for Briareus with his hundred hands to come in to his aid. An emblem, no doubt, to shew, how safe it is for monarchs to make sure of the good will of common people.

To give moderate liberty for griefs and discontentments to evaporate (so it be without too great insolency or bravery) is a safe way. For he that turneth the humours back, and maketh the wound bleed inwards, endangereth malign ulcers and pernicious impostumations.

The part of Epimetheus might well become Prometheus, in the case of discontentments, for there is not a better provision against them. Epimetheus, when griefs and evils flew abroad, at last shut the lid, and kept hope in the bottom of the vessel. Certainly the politique and artificial nourishing and entertaining of hopes, and carrying men from hopes to hopes, is one of the best antidotes against the poison of discontentments. And it is a certain sign of a wise government and proceeding, when it can hold mens hearts by hopes, when it cannot by satisfaction: and when it can handle things in such manner, as no evil shall appear so peremptory, but that it hath some outlet of hope; which is the less hard



hard to do, because both particular persons and factions are apt enough to flatter themselves, or at least to brave that which they believe not.

Also, the foresight and prevention that there be no likely or fit head, whereunto discontented persons may resort, and under whom they may join, is a known but an excellent point of caution. I understand a fit head to be one that hath greatness and reputation; that hath confidence with the discontented party, and upon whom they turn their eyes; and that is thought discontented in his own particular: which kind of persons are either to be won and reconciled to the state, and that in a soft and true manner; or to be fronted with some other of the same party that may oppose them, and so divide the reputation. Generally, the dividing and breaking of all factions and combinations that are adverse to the state, and setting them at distance, or at least distrust amongst themselves, is not one of the worst remedies. For it is a desperate case, if those that hold with the proceeding of the state, be full of discord and faction; and those that are against it be entire and united.

I have noted, that some witty and sharp speeches which have fallen from princes, have given fire to seditions. Cæsar did himself infinite hurt in that speech; *Sylla nescivit literas, non petuit distare*: for it did utterly cut off that hope which men had entertained, that he would at one time or other give over his dictatorship. Galba undid himself by that speech; *Legi a se militem, non emi*: for it put the soldiers out of hope of the donative. Probus likewise by that speech, *Si vixero, non opus erit amplius Romano imperio militibus*; a speech of great despair for the soldiers: and many the like. Surely, princes had need, in tender matters and ticklish times, to beware what they say; especially in these short speeches, which fly abroad like darts, and are thought to be shot out of their secret intentions. For, as for large discourses, they are flat things, and not so much noted.

Lastly, let princes, against all events, not be without some great person, one, or rather more, of military valour near unto them, for the repressing of seditions in their beginnings. For without that, there useth to be more trepidation in court upon the first breaking out of troubles, than were fit. And the state runneth the danger of that which Tacitus saith, *atque is habitus animorum fuit, ut pessimum facinus auderent pauci, plures vellet, omnes paterentur*. But let such military persons be assured and well reputed of, rather than factious and popular; holding also good correspondence with the other great men in the state; or else the remedy is worse than the disease.

## XVI. Of ATHEISM.

I Had rather believe all the fables in the Legend, and the Talmud, and the Alcoran, than that this universal frame is without a mind. And therefore God never wrought miracle to convince atheism, because his ordinary works convince it. It is true, that a little philosophy inclineth man's mind to atheism; but depth in philosophy bringeth mens minds about to religion: for while the mind of man looketh upon second causes scattered, it may sometimes rest in them and go no farther; but when it beholdeth the chain of them confederate and linked together, it must need fly to Providence and Deity. Nay even that school which is most accused of atheism, doth most demonstrate religion: that is, the school of Leucippus, and Democritus, and Epicurus. For it is a thousand times more credible, that four mutable elements, and one immutable fifth essence duly and eternally placed, need no God; than that an army of infinite small portions, or seeds unplaced, should have produced this order and beauty without a divine marshall. The Scripture saith, *The fool hath said in his heart, there is no God*: it is not said, *the fool hath thought in his heart*. So as he rather saith it by rote to himself, as that he would have, than that he can thoroughly believe it, or be persuaded of it. For none deny there is a God, but those for whom it maketh that there were no God. It appeareth in nothing more, that atheism is rather in the lip than in the heart of man, than by this; that atheists will ever be talking of that their opinion, as if they fainted in it within themselves,



selves, and would be glad to be strengthened by the consent of others : nay more, you shall have atheists strive to get disciples, as it fareth with other sects : and, which is most of all, you shall have of them that will suffer for atheism, and not recant ; whereas if they did truly think that there were no such thing as God, why should they trouble themselves ? Epicurus is charged, that he did but dissemble, for his credit's sake, when he affirmed there were blessed natures, but such as enjoyed themselves without having respect to the government of the world. Wherein they say he did temporize, though in secret he thought there was no God. But certainly he is traduced ; for his words are noble and divine : *Non deos vulgi negare profanum ; sed vulgi opiniones diis applicare profanum.* Plato could have said no more. And although he had the confidence to deny the administration, he had not the power to deny the nature. The Indians of the west have names for their particular gods, though they have no name for God : as if the heathens should have had the names Jupiter, Apollo, Mars, etc. but not the word *Deus* : which shews, that even those barbarous people have the notion, though they have not the latitude and extent of it. So that against atheists the very savages take part with the very subtlest philosophers. The contemplative atheist is rare ; a Diagoras, a Bion, a Lucian perhaps, and some others : and yet they seem to be more than they are ; for that all that impugn a received religion, or superstition, are by the adverse part branded with the name of atheists. But the great atheists indeed are hypocrites ; which are ever handling holy things, but without feeling : so as they must needs be cauterized in the end. The causes of atheism are ; divisions in religion, if they be many ; for any one main division addeth zeal to both sides ; but many divisions introduce atheism. Another is, scandal of priests ; when it is come to that which S. Bernard saith, *non est jam dicere, ut populus, sic sacerdos : quia nec se populus, ut sacerdos.* A third is, custom of profane scoffing in holy matters ; which doth by little and little deface the reverence of religion. And lastly, learned times, especially with peace and prosperity : for troubles and adversities do more bow mens minds to religion. They that deny a God, destroy man's nobility : for certainly man is of kin to the beasts by his body ; and if he be not of kin to God by his spirit, he is a base and ignoble creature. It destroys likewise magnanimity, and the raising of human nature : for take an example of a dog, and mark what a generosity and courage he will put on, when he finds himself maintained by a man ; who to him is instead of a God, or *melior natura* : which courage is manifestly such, as that creature, without that confidence of a better nature than his own, could never attain. So man, when he reflecteth and assureth himself upon divine protection and favour, gathereth a force and faith, which human nature in itself could not obtain : therefore as atheism is in all respects hateful, so in this, that it depriveth human nature of the means to exalt itself above human frailty. As it is in particular persons, so it is in nations : never was there such a state for magnanimity as Rome ; of this state hear what Cicero saith : *Quam volumus, licet, patres conscripti, nos anemus, tamē nec numero Hispanos, nec robore Gallos, nec calliditate Pœnos, nec artibus Græcos, nec denique hoc ipso huius gentis et terræ domestico nativæque sensu Italos ipsos et Latinos ; sed pietate, ac religione, atque hac una sapientia, quod deorum immortalium numine omnia regi gubernarique perspicimus, omnes gentes nationesque superavimus.*

## XVII. Of SUPERSTITION.

**I**T were better to have no opinion of God at all, than such an opinion as is unworthy of him : for the one is unbelief, the other is contumely : and certainly superstition is the reproach of the Deity. Plutarch saith well to that purpose : “ Surely (saith he) I had rather a great deal men should say, there was no such man at all as Plutarch, than that they should say, that there was one “ Plutarch, that would eat his children as soon as they were born ; as the poets “ speak of Saturn.” And as the contumely is greater towards God, so the danger is greater towards men. Atheism leaves a man to sense, to philosophy, to natural piety, to laws, to reputation ; all which may be guides to an outward moral  
Vol. I. 5 I virtue,



virtue, though religion were not : but superstition dismounts all these, and erecteth an absolute monarchy in the minds of men. Therefore atheism did never perturb states ; for it makes men wary of themselves, as looking no farther : and we see the times inclined to atheism (as the time of Augustus Cæsar) were civil times. But superstition hath been the confusion of many states ; and bringeth in a new *primum mobile*, that ravisheth all the spheres of government. The master of superstition is the people ; and in all superstition wise men follow fools ; and arguments are fitted to practice, in a reversed order. It was gravely said by some of the prelates in the council of Trent, where the doctrine of the school-men bare great sway ; that the schoolmen were like astronomers, which did feign eccentricks and epicycles, and such engines of orbs, to save the phenomena, though they knew there were no such things ; and in like manner, that the school-men had framed a number of subtle and intricate axioms and theorems, to save the practice of the church. The causes of superstition are : pleasing and sensual rites and ceremonies ; excess of outward and pharisaical holiness : over-great reverence of traditions, which cannot but load the church : the stratagems of prelates for their own ambition and lucre : the favouring too much of good intentions, which openeth the gate to conceits and novelties : the taking an aim at divine matters by human, which cannot but breed mixture of imaginations : and lastly, barbarous times, especially joined with calamities and disasters. Superstition without a veil is a deformed thing : for as it addeth deformity to an ape to be so like a man ; so the similitude of superstition to religion makes it the more deformed. And as wholesome meat corrupteth to little worms ; so good forms and orders corrupt into a number of petty observances. There is a superstition in avoiding superstition ; when men think to do best, if they go farthest from the superstition formerly received : therefore care would be had, that (as it saith in ill purgings) the good be not taken away with the bad, which commonly is done when the people is the reformer.

### XVIII. OF TRAVEL.

TRAVEL in the younger sort is a part of education ; in the elder a part of experience. He that travelleth into a country before he hath some entrance into the language, goeth to school, and not to travel. That young men travel under some tutor, or grave servant, I allow well ; so that he be such a one that hath the language, and hath been in the country before ; whereby he may be able to tell them what things are worthy to be seen in the country where they go, what acquaintances they are to seek, what exercises or discipline the place yieldeth. For else young men shall go hooded, and look abroad little. It is a strange thing, that in sea-voyages, where there is nothing to be seen but sky and sea, men should make diaries ; but in land travel, wherein so much is to be observed, for the most part they omit it ; as if chance were fitter to be registred than observation. Let diaries therefore be brought in use. The things to be seen and observed are ; the courts of princes, especially when they give audience to ambassadors : the courts of justice while they sit and hear causes : and so of consistories ecclesiastick : the churches and monasteries, with the monuments which are therein extant : the walls and fortifications of cities and towns, and so the havens and harbours ; antiquities and ruins ; libraries, colleges, disputations, and lectures, where any are ; shipping and navies ; houses, and gardens of state and pleasure near great cities ; armories, arsenals, magazines, exchanges, burses, ware-houses ; exercises of horsemanship, fencing, training of soldiers, and the like ; comedies, such whereunto the better sort of persons do resort ; treasures of jewels and robes, cabinets and rarities : and to conclude, whatsoever is memorable in the places where they go. After all which the tutors or servants ought to make diligent enquiry. As for triumphs, masks, feasts, weddings, funerals, capital executions, and such shews, men need not to be put in mind of them ; yet are they not to be neglected. If you will have a young man to put his travel into a little room, and in short time to gather much, this you must do : first, as was said, he must have some entrance into the language before



before he goeth. Then he must have such a servant, or tutor, as knoweth the country, as was likewise said. Let him carry with him also some card or book describing the country where he travelleth, which will be a good key to his enquiry. Let him keep also a diary. Let him not stay long in one city or town; more or less as the place deserveth, but not long: nay, when he stayeth in one city or town, let him change his lodging from one end and part of the town to another, which is a great adamant of acquaintance. Let him sequester himself from the company of his country-men, and diet in such places where there is good company of the nation where he travelleth. Let him, upon his removes from one place to another, procure recommendation to some person of quality residing in the place whither he removeth; that he may use his favour in those things he desireth to see or know. Thus he may abridge his travel with much profit. As for the acquaintance which is to be sought in travel, that which is most of all profitable, is acquaintance with the secretaries and employ'd men of ambassadors; for so in travelling in one country he shall suck the experience of many. Let him also see and visit eminent persons in all kinds, which are of great name abroad; that he may be able to tell how the life agreeth with the fame. For quarrels, they are with care and discretion to be avoided: they are commonly for mistresses, healths, place, and words. And let a man beware how he keepeth company with choleric and quarrelsome persons; for they will engage him into their own quarrels. When a traveller returneth home, let him not leave the countries where he hath travelled altogether behind him; but maintain a correspondence by letters with those of his acquaintance which are of most worth. And let his travel appear rather in his discourse, than in his apparel or gesture; and in his discourse let him be rather advised in his answers, than forward to tell stories: and let it appear that he doth not change his country manners for those of foreign parts; but only prick in some flowers of that he hath learned abroad, into the customs of his own country.

## XIX. Of Empire.

**I**T is a miserable state of mind to have few things to desire, and many things to fear: and yet that commonly is the case of kings, who being at the highest, want matter of desire, which makes their minds more languishing: and have many representations of perils and shadows, which makes their minds the less clear. And this is one reason also of that effect which the Scripture speaketh of, *that the king's heart is inscrutable*. For multitude of jealousies, and lack of some predominant desire, that should marshal and put in order all the rest, maketh any man's heart hard to find or sound. Hence it comes likewise, that princes many times make themselves desires, and set their hearts upon toys; sometimes upon a building; sometimes upon erecting of an order; sometimes upon the advancing of a person; sometimes upon obtaining excellency in some art, or feat of the hand; as Nero for playing on the harp; Domitian for certainty of the hand with the arrow; Commodus for playing at fence; Caracalla for driving chariots; and the like. This seemeth incredible unto those that know not the principle, That the mind of man is more cheared and refreshed by profiting in small things, than by standing at a stay in great. We see also that kings that have been fortunate conquerors in their first years, it being not possible for them to go forward infinitely, but that they must have some check or arrest in their fortunes, turn in their latter years to be superstitious and melancholy: as did Alexander the Great, Dioclesian, and in our memory Charles the fifth, and others: for he that is used to go forward, and findeth a stop, falleth out of his own favour, and is not the thing he was.

To speak now of the true temper of empire: it is a thing rare and hard to keep; for both temper and dis Temper consist of contraries. But it is one thing to mingle contraries, another to interchange them. The answer of Apollonius to Vespasian is full of excellent instruction: Vespasian asked him, what was Nero's overthrow? He answered, Nero could touch and tune the harp well, but in government sometimes he used to wind the pins too high, sometimes

to



to let them down too low. And certain it is that nothing destroyeth authority so much, as the unequal and untimely interchange of power pressed too far, and relaxed too much.

This is true, that the wisdom of all these latter times, in princes affairs, is rather fine deliveries, and shiftings of dangers and mischiefs, when they are near; than solid and grounded courses to keep them aloof. But this is but to try masteries with fortune: and let men beware, how they neglect, and suffer matter of trouble to be prepared; for no man can forbid the spark, nor tell whence it may come. The difficulties in princes business are many and great; but the greatest difficulty is often in their own mind. For it is common with princes (saith Tacitus) to will contradictions. *Sunt plerumque regum voluntates vehementes, et inter se contrariae.* For it is the solecism of power, to think to command the end, and yet not to endure the mean.

Kings have to deal with their neighbours; their wives; their children; their prelates or clergy; their nobles; their second nobles or gentlemen; their merchants; their commons; and their men of war; and from all these arise dangers, if care and circumspection be not used.

First for their neighbours, there can no general rule be given (the occasions are so variable) save one, which ever holdeth; which is, that princes do keep due centinel, that none of their neighbours do overgrow so (by encrease of territory, by embracing of trade, by approaches, or the like) as they become more able to annoy them, than they were. And this is generally the work of standing counsels, to foresee, and to hinder it. During that triumvirate of kings, king Henry the eighth of England, Francis the first, king of France, and Charles the fifth, emperor, there was such a watch kept, that none of the three could win a palm of ground, but the other two would straightways balance it, either by confederation, or if need were by a war: and would not, in any wise, take up peace at interest. And the like was done by that league (which, Guicciardine saith, was the security of Italy) made between Ferdinando king of Naples; Lorenzius Medices, and Ludovicus Sforza, potentates, the one of Florence, the other of Milan. Neither is the opinion of some of the schoolmen to be received, that a war cannot justly be made, but upon a precedent injury, or provocation. For there is no question, but a just fear of an imminent danger, though there be no blow given, is a lawful cause of a war.

For their wives, there are cruel examples of them. Livia is infamous for the poisoning of her husband: Roxolana, Solymán's wife, was the destruction of that renowned prince, Sultan Mustapha; and otherwise troubled his house and succession: Edward the second of England his queen had the principal hand in the deposing and murder of her husband. This kind of danger is then to be feared, chiefly, when the wives have plots for the raising of their own children, or else that they be advourees.

For their children: the tragedies likewise of the dangers from them have been many: and generally, the entring of fathers into suspicion of their children hath been ever unfortunate. The destruction of Mustapha (that we named before) was so fatal to Solymán's line, as the succession of the Turks, from Solymán until this day, is suspected to be untrue, and of strange blood; for that Selymus the second was thought to be supposititious. The destruction of Crispus, a young prince of rare towardness, by Constantinus the Great, his father, was in like manner fatal to his house, for both Constantinus and Constance, his sons, died violent deaths; and Constantinus his other son did little better; who died indeed of sickness, but after that Julianus had taken arms against him. The destruction of Demetrius, son to Philip the second of Macedon, turned upon the father, who died of repentance. And many like examples there are; but few or none where the fathers had good by such distrust, except it were where the sons were up in open arms against them; as was Selymus the first against Bajazet: and the three sons of Henry the second, king of England.

For their prelates, when they are proud and great, there is also danger from them: as it was in the times of Anselmus and Thomas Becket, archbishops of Canterbury, who with their crosses did almost try it with the king's sword; and yet



yet they had to deal with stout and haughty kings, William Rufus, Henry the first, and Henry the second. The danger is not from that state, but where it hath a dependence of foreign authority; or where the churchmen come in, and are elected, not by the collation of the king, or particular patrons, but by the people.

For their nobles; to keep them at a distance it is not amiss; but to depress them, may make a king more absolute, but less safe; and less able to perform any thing that he desires: I have noted it in my *History of king Henry the seventh of England*, who depressed his nobility; whereupon it came to pass that his times were full of difficulties and troubles: for the nobility, though they continued loyal unto him, yet did they not co-operate with him in his business. So that in effect he was fain to do all things himself.

For their second nobles; there is not much danger from them, being a body dispersed. They may sometimes discourse high, but that doth little hurt: besides, they are a counterpoize to the higher nobility, that they grow not too potent: and lastly, being the most immediate in authority with the common people, they do best temper popular commotions.

For their merchants, they are *vena porta*; and if they flourish not, a kingdom may have good limbs, but will have empty veins, and nourish little. Taxes and imposts upon them do seldom good to the king's revenue, for that that he wins in the hundred, he loseth in the shire; the particular rates being increased, but the total bulk of trading rather decreased.

For their commons, there is little danger from them, except it be where they have great and potent heads; or where you meddle with the point of religion, or their customs, or means of life.

For their men of war, it is a dangerous state where they live and remain in a body, and are used to donatives, whereof we see examples in the janizaries, and pretorian bands of Rome; but trainings of men, and arming them in several places, and under several commanders, and without donatives, are things of defence and no danger.

Princes are like to heavenly bodies, which cause good or evil times; and which have much veneration, but no rest. All precepts concerning kings are in effect comprehended in those two remembrances: *Memento quod es homo*; and *Memento quod es Deus*, or *vice Dei*: the one bridlcth their power, and the other their will.

## XX. Of COUNSEL.

THE greatest trust between man and man is the trust of giving counsel. For in other confidences, men commit the parts of life; their lands, their goods, their children, their credit, some particular affair; but to such as they make their counsellors they commit the whole: by how much the more they are obliged to all faith and integrity. The wisest princes need not think it any diminution to their greatness, or derogation to their sufficiency, to rely upon counsel. God himself is not without: but hath made it one of the great names of his blessed Son, *the counsellor*. Solomon hath pronounced, that *in counsel is stability*. Things will have their first, or second agitation; if they be not tossed upon the arguments of counsel, they will be tossed upon the waves of fortune; and be full of inconsistency, doing and undoing, like the reeling of a drunken man. Solomon's son found the force of counsel, as his father saw the necessity of it. For the beloved kingdom of God was first rent and broken by ill counsel; upon which counsel there are set, for our instruction, the two marks, whereby bad counsel is for ever best discerned: that it was young counsel, for the persons; and violent counsel, for the matter.

The ancient times do set forth in figure, both the incorporation and inseparable conjunction of counsel with kings, and the wise and politick use of counsel by kings: the one, in that they say Jupiter did marry Metis, which signifyeth counsel; whereby they intend, that sovereignty is married to counsel: the other in that which followeth, which was thus: they say, after Jupiter was married to Metis, she conceived by him, and was with child, but Jupiter suffered her not



to stay till she brought forth, but eat her up; whereby he became himself with child, and was delivered of Pallas armed out of his head. Which monstrous fable containeth a secret of empire; how kings are to make use of their council of state: that, first, they ought to refer matters unto them, which is the first begetting or impregnation; but when they are elaborate, moulded and shaped in the womb of their council, and grow ripe and ready to be brought forth, that then they suffer not their council to go through with the resolution and direction, as if it depended on them; but take the matter back into their own hands, and make it appear to the world, that the decrees and final directions (which, because they come forth with prudence and power, are resembled to Pallas armed) proceeded from themselves, and not only from their authority, but (the more to add reputation to themselves) from their head and device.

Let us now speak of the inconveniencies of counsel, and of the remedies. The inconveniences that have been noted in calling and using counsel are three. First, the revealing of affairs, whereby they become less secret. Secondly, the weakening of the authority of princes, as if they were less of themselves. Thirdly, the danger of being unfaithfully counselled, and more for the good of them that counsel, than of him that is counselled. For which inconveniencies, the doctrine of Italy, and practice of France, in some kings times, hath introduced cabinet counsels; a remedy worse than the disease.

As to secrecy, princes are not bound to communicate all matters with all counsellors, but may extract and select. Neither is it necessary, that he that consulteth what he should do, should declare what he will do. But let princes beware, that the unsecreting of their affairs comes not from themselves. And as for cabinet counsels, it may be their motto; *Plenus rinarum sum*: one futile person, that maketh it his glory to tell, will do more hurt than many that know it their duty to conceal. It is true, there be some affairs which require extreme secrecy, which will hardly go beyond one or two persons besides the king: neither are those counsels unprosperous; for besides the secrecy, they commonly go on constantly in one spirit of direction without distraction. But then it must be a prudent king, such as is able to grind with a hand-mill; and those inward counsellors had need also be wise men, and especially true and trusty to the king's ends; as it was with king Henry the seventh of England, who in his greatest business imparted himself to none, except it were to Morton and Fox.

For weakening of authority; the fable sheweth the remedy. Nay, the majesty of kings is rather exalted than diminished, when they are in the chair of counsel; neither was there ever prince bereaved of his dependances by his council, except where there hath been either an over-greatness in one counsellor, or an over-strict combination in divers; which are things soon found and holpen.

For the last inconvenience, that men will counsel with an eye to themselves; certainly *Non inceniet silem super terram* is meant of the nature of times, and not of all particular persons. There be, that are in nature faithful and sincere, and plain and direct; not crafty and involved: let princes above all draw to themselves such natures. Besides, counsellors are not commonly so united, but that one counsellor keepeth centinel over another; so that if any do counsel out of faction or private ends, it commonly comes to the king's ear. But the best remedy is, if princes know their counsellors, as well as their counsellors know them:

*Principis est virtus maxima nosse suos.*

And on the other side, counsellors should not be too speculative into their sovereign's person. The true composition of a counsellor is rather to be skilful in their master's business, than in his nature; for then he is like to advise him, and not to feed his humour. It is of singular use to princes, if they take the opinions of their council both separately and together: for private opinion is more free, but opinion before others is more reverend. In private, men are more bold in their own humours; and in consort, men are more obnoxious to others humours; therefore it is good to take both: and of the inferior sort, rather in private, to preserve freedom; of the greater rather in consort, to preserve respect. It is in vain for princes to take counsel concerning matters, if they take no counsel like-

wile



wife concerning persons: for all matters are as dead images; and the life of the execution of affairs resteth in the good choice of persons. Neither is it enough to consult concerning persons *secundum genera*, as in an idea or mathematical description, what the kind and character of the person should be; for the greatest errors are committed, and the most judgment is shewn, in the choice of individuals. It was truly said, *optimi consilarii mortui*; books will speak plain, when counsellors blanch. Therefore it is good to be conversant in them, specially the books of such as themselves have been actors upon the stage.

The councils at this day, in most places, are but familiar meetings; where matters are rather talked on, than debated: and they run too swift to the order or act of council. It were better, that in causes of weight the matter were propounded one day, and not spoken to till the next day; *in nocte consilium*. So was it done in the commission of union between England and Scotland; which was a grave and orderly assembly. I commend set days for petitions: for both it gives the suitors more certainty for their attendance; and it frees the meetings for matters of estate, that they may *hoc agere*. In choice of committees, for ripening business for the council, it is better to chuse indifferent persons, than to make an indifferency, by putting in those that are strong on both sides. I commend also standing commissions; as for trade, for treasure, for war, for suits, for some provinces: for where there be divers particular councils, and but one council of estate (as it is in Spain) they are, in effect, no more than standing commissions; save that they have greater authority. Let such as are to inform councils out of their particular professions (as lawyers, seamen, mint-men, and the like) be first heard before committees; and then, as occasion serves, before the council. And let them not come in multitudes, or in a tribunitious manner; for that is to clamour councils, not to inform them. A long table, and a square table, or seats about the walls, seem things of form, but are things of substance; for at a long table, a few at the upper end, in effect, sway all the business; but in the other form, there is more use of the counsellors opinions that sit lower. A king when he presides in council, let him beware how he opens his own inclination too much, in that which he propoundeth: for else counsellors will but take the wind of him, and instead of giving free counsel sing him a song of *Placcho*.

## XXI. Of DELAYS.

Fortune is like the market, where many times if you can stay a little, the price will fall. And again, it is sometimes like Sibylla's offer, which at first offereth the commodity at full, then consumeth part and part, and still holdeth up the price. For Occasion (as it is in the common verse) turneth a bald noddle, after she hath presented her locks in front, and no hold taken: or at least turneth the handle of the bottle first to be received, and after the belly, which is hard to clasp. There is surely no greater wisdom, than well to time the beginnings and onsets of things. Dangers are no more light, if they once seem light: and more dangers have deceived men, than forced them. Nay, it were better to meet some dangers half way, though they come nothing near, than to keep too long a watch upon their approaches; for if a man watch too long, it is odds he will fall asleep. On the other side, to be deceived with too long shadows (as some have been when the moon was low, and shone on their enemies back) and so to shoot off before the time; or to teach dangers to come on, by over-early buckling towards them, is another extreme. The ripeness or unripeness of the occasion (as we said) must ever be well weighed; and generally it is good to commit the beginnings of all great actions to Argos with his hundred eyes, and the ends to Briareus with his hundred hands: first to watch, and then to speed. For the helmet of Pluto, which maketh the pollick man go invisible, is secrecy in the council, and celerity in the execution. For when things are once come to the execution, there is no secrecy comparable to celerity; like the motion of a bullet in the air, which flieth so swift as it outruns the eye.

## XXII. Of



XXII. *Of Cunning.*

WE take cunning for a sinister or crooked wisdom. And certainly there is great difference between a cunning man, and a wise man; not only in point of honesty, but in point of ability. There be that can pack the cards, and yet cannot play well; so there are some that are good in canvasses and factions, that are otherwise weak men. Again, it is one thing to understand persons, and another thing to understand matters; for many are perfect in mens humours, that are not greatly capable of the real part of business; which is the constitution of one that hath studied men more than books. Such men are fitter for practice than for counsel; and they are good but in their own alley: turn them to new men, and they have lost their aim; so as the old rule to know a fool from a wise man, *Mitte ambos nudos ad ignotos, et videbis*, doth scarce hold for them. And because these cunning men are like haberdashers of small wares, it is not amiss to set forth their shop.

It is a point of cunning, to wait upon him with whom you speak with your eye; as the Jesuits give it in precept: for there be many wise men that have secret hearts and transparent countenances. Yet this would be done with a demure abasing of your eye sometimes, as the Jesuits also do use.

Another is, that when you have any thing to obtain of present dispatch, you entertain and amuse the party with whom you deal with some other discourse; that he be not too much awake to make objections. I knew a counsellor and secretary, that never came to queen Elizabeth of England with bills to sign, but he would always first put her into some discourse of estate, that she might the less mind the bills.

The like surprize may be made by moving things when the party is in haste, and cannot stay to consider advisedly of that is moved.

If a man would cross a business, that he doubts some other would handsomely and effectually move, let him pretend to wish it well, and move it himself in such sort as may foil it.

The breaking off in the midst of that one was about to say, as if he took himself up, breeds a greater appetite in him with whom you confer, to know more.

And because it works better when any thing seemeth to be gotten from you by question, than if you offer it of yourself, you may lay a bait for a question, by shewing another visage and countenance than you are wont; to the end to give occasion for the party to ask what the matter is of the change; as Nehemiah did, *And I had not before that time been sad before the king.*

In things that are tender and unpleasing, it is good to break the ice by some whose words are of less weight, and to relieve the more weighty voice to come in as by chance, so that he may be asked the question upon the other's speech: as Narcissus did, in relating to Claudius the marriage of Messalina and Silius.

In things that a man would not be seen in himself, it is a point of cunning to borrow the name of the world; as to say, The world says, or, There is a speech abroad.

I knew one, that when he wrote a letter, he would put that which was most material in the postscript, as if it had been a bye-matter.

I knew another, that when he came to have speech, he would pass over that that he intended most; and go forth, and come back again, and speak of it as of a thing that he had almost forgot.

Some procure themselves to be surprized at such times, as it is like the party that they work upon will suddenly come upon them; and to be found with a letter in their hand, or doing somewhat which they are not accustomed; to the end they may be apposed of those things, which of themselves they are desirous to utter.

It is a point of cunning to let fall those words in a man's own name, which he would have another man learn and use, and thereupon take advantage. I knew two that were competitors for the secretary's place in queen Elizabeth's time, and yet kept good quarter between themselves, and would confer one with another



another upon the business; and the one of them said, that to be a secretary in the declination of a monarchy, was a ticklish thing, and that he did not affect it: the other straight caught up those words, and discoursed with divers of his friends, that he had no reason to desire to be secretary in the declination of a monarchy. The first man took hold of it, and found means it was told the queen; who hearing of a declination of a monarchy, took it so ill, as she would never after hear of the other's suit.

There is a cunning which we in England call, the turning of the cat in the pan; which is, when that which a man says to another, he lays it as if another had said it to him; and to say truth, it is not easy, when such a matter passed between two, to make it appear from which of them it first moved and began.

It is a way that some men have, to glance and dart at others, by justifying themselves by negatives; as to say, This I do not: as Tigellinus did towards Burrhus, *se non dixeris spes, sed incolumitatem imperatoris, simpliciter spectare.*

Some have in readiness so many tales and stories, as there is nothing they would insinuate, but they can wrap it into a tale; which serveth both to keep themselves more in guard, and to make others carry it with more pleasure.

It is a good point of cunning, for a man to shape the answer he would have in his own words and propositions; for it makes the other party stick the less.

It is strange how long some men will lie in wait to speak somewhat they desire to say; and how far about they will fetch, and how many other matters they will beat over to come near it; it is a thing of great patience, but yet of much use.

A sudden, bold, and unexpected question, doth many times surprize a man, and lay him open. Like to him, that having changed his name, and walking in Paul's, another suddenly came behind him and called him by his true name, wherewith straightways he looked back.

But these small wares and petty points of cunning are infinite, and it were a good deed to make a list of them; for that nothing doth more hurt in a state, than that cunning men pass for wise.

But certainly some there are that know the resorts and falls of business, that cannot sink into the main of it; like a house that hath convenient stairs and entries, but never a fair room. Therefore you shall see them find out pretty looses in the conclusion, but are no ways able to examine or debate matters. And yet commonly they take advantage of their inability, and would be thought wits of direction. Some build rather upon the abusing of others, and (as we now say) putting tricks upon them, than upon soundness of their own proceedings. But Solomon saith, *Prudens advertit ad gressus suos: Stultus dvertit ad dolos.*

### XXIII. OF WISDOM FOR A MAN'S SELF.

**A**N ant is a wife creature for itself: but it is a shrewd thing in an orchard or garden. And certainly men that are great lovers of themselves waste the publick. Divide with reason between self-love and society; and be so true to thyself, as thou be not false to others; especially to thy king and country. It is a poor center of a man's actions, Himself. It is right earth. For that only stands fast upon his own center: whereas all things that have affinity with the heavens, move upon the center of another which they benefit. The referring of all to a man's self is more tolerable in a sovereign prince, because themselves are not only themselves, but their good and evil is at the peril of the publick fortune. But it is a desperate evil in a servant to a prince, or a citizen in a republick. For whatsoever affairs pass such a man's hands, he crooketh them to his own ends: which must needs be often eccentric to the ends of his master or state. Therefore let princes or states chuse such servants as have not this mark; except they mean their service should be made but the accessory. That which maketh the effect more pernicious is, that all proportion is lost: it were disproportion enough for the servant's good to be preferred before the master's; but yet it is a greater extreme, when a little good of the servant shall carry things against a great good of the master's. And yet that is the case of bad officers, treasurers,



ambassadors, generals, and other false and corrupt servants; which set a bias upon their bowl of their own petty ends and envies, to the overthrow of their masters great and important affairs. And for the most part, the good such servants receive, is after the model of their own fortune; but the hurt they sell for that good, is after the model of their masters fortune. And certainly it is the nature of extreme self-lovers, as they will set an house on fire, and it were but to roast their eggs: and yet these men many times hold credit with their masters, because their study is but to please them, and profit themselves: and for either respect they will abandon the good of their affairs.

Wisdom for a man's self is in many branches thereof a depraved thing. It is the wisdom of rats, that will be sure to leave a house somewhat before it fall. It is the wisdom of the fox, that thrusts out the badger, who digged and made room for him. It is the wisdom of crocodiles, that shed tears when they would devour. But that which is specially to be noted is, that those which (as Cicero says of Pompey) are *sui amantes sine rivali*, are many times unfortunate. And whereas they have all their time sacrificed to themselves, they become in the end themselves sacrifices to the inconstancy of fortune, whose wings they thought by their self-wisdom to have pinioned.

#### XXIV. Of INNOVATIONS.

AS the births of living creatures at first are ill shapen; so are all innovations, which are the births of time. Yet notwithstanding as those that first bring honour into their family, are commonly more worthy than most that succeed: so the first precedent (if it be good) is seldom attained by imitation. For ill, to man's nature, as it stands perverted, hath a natural motion strongest in continuance: but good, as a forced motion, strongest at first. Surely every medicine is an innovation, and he that will not apply new remedies, must expect new evils; for time is the greatest innovator: and if time of course alter things to the worse, and wisdom and counsel shall not alter them to the better, what shall be the end? It is true, that what is settled by custom, though it be not good, yet at least it is fit. And those things which have long gone together, are, as it were, confederate within themselves: whereas new things piece not so well; but though they help by their utility, yet they trouble by their inconsistency. Besides, they are like strangers, more admired, and less favoured. All this is true if time stood still; which contrariwise moveth so round, that a forward retention of custom is as turbulent a thing, as an innovation; and they that reverence too much old times are but a scorn to the new. It were good therefore, that men in their innovations would follow the example of time itself, which indeed innovateth greatly, but quietly and by degrees scarce to be perceived: for otherwise whatsoever is new is unlooked for; and ever it mends some, and pairs other: and he that is holpen takes it for a fortune, and thanks the time; and he that is hurt, for a wrong, and imputeth it to the author. It is good also not to try experiments in states, except the necessity be urgent, or the utility evident; and well to beware that it be the reformation that draweth on the change; and not the desire of change that pretendeth the reformation. And lastly, that the novelty, though it be not rejected, yet be held for a suspect: and, as the Scripture saith, *that we make a stand upon the ancient way, and then look about us, and discover what is the straight and right way, and so to walk in it.*

#### XXV. Of DISPATCH.

AFFECTED dispatch is one of the most dangerous things to business that can be. It is like that which the physicians call predigestion, or hasty digestion; which is sure to fill the body full of crudities, and secret seeds of diseases. Therefore measure not dispatch by the times of sitting, but by the advancement of the business. And as in races, it is not the large stride, or high lift, that makes the speed; so in business, the keeping close to the matter, and not taking of it too much at once, procureth dispatch. It is the care of some, only to come



off speedily for the time; or to contrive some false periods of business, because they may seem men of dispatch. But it is one thing to abbreviate by contracting, another by cutting off; and business so handled at several sittings or meetings, goeth commonly backward and forward in an untieddy manner. I knew a wise man that had it for a by-word, when he saw men hasten to a conclusion, "Stay a little, that we may make an end the sooner."

On the other side, true dispatch is a rich thing. For time is the measure of business, as money is of wares: and business is bought at a dear hand, where there is small dispatch. The Spartans and Spaniards have been noted to be of small dispatch: *Mi vengas la muerte de Spagna*; Let my death come from Spain; for then it will be sure to be long in coming.

Give good hearing to those that give the first information in business; and rather direct them in the beginning, than interrupt them in the continuance of their speeches: for he that is put out of his own order, will go forward and backward, and be more tedious while he waits upon his memory, than he could have been if he had gone on in his own course. But sometimes it is seen, that the moderator is more troublesome than the actor.

Iterations are commonly loss of time: but there is no such gain of time, as to iterate often the state of the question; for it chaseth away many a frivolous speech as it is coming forth. Long and curious speeches are as fit for dispatch, as a robe or mantle with a long train is for race. Prefaces, and passages, and exculpations, and other speeches of reference to the person, are great wastes of time; and though they seem to proceed of modesty, they are bravery. Yet beware of being too material, when there is any impediment or obstruction in mens wills; for pre-occupation of mind ever requireth preface of speech; like a fomentation to make the unguent enter.

Above all things, order, and distribution, and singling out of parts, is the life of dispatch; so as the distribution be not too subtile: for he that doth not divide, will never enter well into business; and he that divideth too much, will never come out of it clearly. To chuse time, is to save time; and an unreasonable motion is but beating the air. There be three parts of business; the preparation, the debate or examination, and the perfection. Whereof, if you look for dispatch, let the middle only be the work of many, and the first and last the work of few. The proceeding upon somewhat conceived in writing, doth for the most part facilitate dispatch: for though it should be wholly rejected, yet that negative is more pregnant of direction, than an indefinite; as ashes are more generative than dust.

## XXVI. Of SEEMING WISE.

It hath been an opinion, that the French are wiser than they seem, and the Spaniards seem wiser than they are. But howsoever it be between nations, certainly it is so between man and man. For as the apostle saith of godliness, *having a shew of godliness, but denying the power thereof*; so certainly there are in point of wisdom and sufficiency, that do nothing or little very solemnly; *magna canit nugas*. It is a ridiculous thing, and fit for a satire to persons of judgment, to see what shifts these formalists have, and what prospectives to make superfluities to seem body that hath depth and bulk. Some are so close and reserved, as they will not shew their wares but by a dark light; and seem always to keep back somewhat; and when they know within themselves, they speak of that they do not well know, would nevertheless seem to others to know of that which they may not well speak. Some help themselves with countenance and gesture, and are wise by signs; as Cicero saith of Piso, that when he answered him, he fetched one of his brows up to his forehead, and bent the other down to his chin: *respondes, altero ad frontem sublato, altero ad mentum depresso supercilio, crudelitatem tibi non placere*. Some think to bear it by speaking a great word, and being peremptory; and go on, and take by admittance that which they cannot make good. Some, whatsoever is beyond their reach, will seem to despise or make light of it as impertinent or curious; and so would have their ignorance



ignorance seem judgment. Some are never without a difference, and commonly by amusing men with a subtilty, blanch the matter; of whom A. Gellius saith, *hominem delirum, qui verborum minutis rerum frangit pondera*. Of which kind also, Plato in his *Protagoras* bringeth in Prodicus in scorn, and maketh him make a speech that consisteth of distinctions from the beginning to the end. Generally such men in all deliberations find ease to be of the negative side, and affect a credit to object and foretel difficulties: for when propositions are denied, there is an end of them; but if they be allowed, it requireth a new work: which false point of wisdom is the bane of business. To conclude, there is no decaying merchant, or inward beggar, hath so many tricks to uphold the credit of their wealth, as these empty persons have to maintain the credit of their sufficiency. Seeming wise men may make shift to get opinion; but let no man chuse them for employment, for certainly you were better take for business a man somewhat absurd, than over-formal.

## XXVII. Of FRIENDSHIP.

**I**T had been hard for him that spake it, to have put more truth and untruth together, in few words, than in that speech; "Whosoever is delighted in solitude, is either a wild beast, or a God." For it is most true, that a natural and secret hatred, and aversion towards society, in any man, hath somewhat of the savage beast: but it is most untrue, that it should have any character at all of the divine nature, except it proceed, not out of a pleasure in solitude, but out of a love and desire to sequester a man's self for a higher conversation: such as is found to have been falsely and feignedly in some of the heathen; as Epimenides the Candian, Numa the Roman, Empedocles the Sicilian, and Apollonius of Tyana; and truly and really in divers of the ancient hermits, and holy fathers of the church. But little do men perceive what solitude is, and how far it extendeth. For a crowd is not company, and faces are but a gallery of pictures; and talk but a tinkling cymbal, where there is no love. The Latin adage meeteth with it a little; *Magna civitas, magna solitudo*; because in a great town friends are scattered, so that there is not that fellowship, for the most part, which is in less neighbourhoods. But we may go farther, and affirm most truly, that it is a mere and miserable solitude, to want true friends, without which the world is but a wilderness. And even in this sense also of solitude, whosoever in the frame of his nature and affections is unfit for friendship, he taketh it of the beast, and not from humanity.

A principal fruit of friendship is the ease and discharge of the fulness and swellings of the heart, which passions of all kinds do cause and induce. We know diseases of stoppings and suffocations are the most dangerous in the body; and it is not much otherwise in the mind; you may take farza to open the liver; steel to open the spleen; flou of sulphur for the lungs; *callorem* for the brain; but no receipt openeth the heart but a true friend, to whom you may impart griefs, joys, fears, hopes, suspicions, counsels, and whatsoever lieth upon the heart, to oppress it, in a kind of civil shrift or confession.

It is a strange thing to observe, how high a rate great kings and monarchs do set upon this fruit of friendship, whereof we speak; so great, as they purchase it many times at the hazard of their own safety and greatness. For princes, in regard of the distance of their fortune from that of their subjects and servants, cannot gather this fruit, except (to make themselves capable thereof) they raise some persons to be as it were companions, and almost equals to themselves; which many times sorteth to inconvenience. The modern languages give unto such persons the name of favourites, or privadoes; as if it were matter of grace or conversation: but the Roman name attaineth the true use and cause thereof; naming them *participes curarum*; for it is that which tieth the knot. And we see plainly, that this hath been done, not by weak and passionate princes only, but by the wisest and most politick that ever reigned, who have oftentimes joined to themselves some of their servants, whom both themselves have called friends, and allowed others likewise to call them in the same manner, using the word which is received between private men.



L. Sylla, when he commanded Rome, raised Pompey (after surnamed the Great) to that height, that Pompey vaunted himself for Sylla's over-match. For when he had carried the consulship for a friend of his, against the pursuit of Sylla, and that Sylla did a little relent thereat, and began to speak great, Pompey turned upon him again, and in effect bad him be quiet; for that more men adored the sun rising, than the sun setting. With Julius Caesar Decimus Brutus had obtained that interest, as he set him down in his testament for heir in remainder after his nephew. And this was the man that had power with him to draw him forth to his death. For when Caesar would have discharged the senate, in regard of some ill presages, and specially a dream of Calpurnia; this man lifted him gently by the arm out of his chair, telling him, He hoped he would not dismiss the senate, till his wife had dreamed a better dream. And it seemeth, his favour was so great, as Antonius, in a letter which is recited *verbatim* in one of Cicero's Philippicks, calleth him *venefica*, witch; as if he had enchanted Caesar. Augustus raised Agrippa (though of mean birth) to that height, as when he consulted with Mæcenas about the marriage of his daughter Julia, Mæcenas took the liberty to tell him, That he must either marry his daughter to Agrippa, or take away his life; there was no third way, he had made him so great. With Tiberius Caesar Sejanus had ascended to that height, as they two were termed and reckoned as a pair of friends. Tiberius in a letter to him saith; *Hæc pro amicitia nostra non occultavi*: and the whole senate dedicated an altar to Friendship, as to a goddess, in respect of the great dearness of friendship between them two. The like or more was between Septimius Severus and Plantianus. For he forced his eldest son to marry the daughter of Plantianus; and would often maintain Plantianus in doing affronts to his son; and did write also in a letter to the senate, by these words: "I love the man so well, as I wish he may over-live me." Now if these princes had been as a Trajan, or a Marcus Aurelius, a man might have thought that this had proceeded of an abundant goodness of nature; but being men so wise, of such strength and severity of mind, and so extreme lovers of themselves, as all these were; it proveth most plainly, that they found their own felicity (though as great as ever happened to mortal men) but as an half piece, except they might have a friend to make it entire; and yet, which is more, they were princes that had wives, sons, nephews; and yet all these could not supply the comfort of friendship.

It is not to be forgotten what Commineus observeth of his first master duke Charles the Hardy, namely, That he would communicate his secrets with none; and least of all those secrets which troubled him most. Whereupon he goeth on, and saith, That towards his latter time, that closeness did impair, and a little perish his understanding. Surely Commineus might have made the same judgment also, if it had pleased him, of his second master Lewis the eleventh, whose closeness was indeed his tormentor. The parable of Pythagoras is dark, but true; *Cor me edito*, eat not the heart. Certainly, if a man would give it a hard phrase, those that want friends to open themselves unto, are cannibals of their own hearts. But one thing is most admirable (wherewith I will conclude this first fruit of friendship) which is, that this communicating of a man's self to his friend works two contrary effects; for it redoubleth joys, and cutteth griefs in halves. For there is no man that imparteth his joys to his friend, but he joyeth the more; and no man that imparteth his griefs to his friend, but he grieveth the less. So that it is in truth of operation upon a man's mind of like virtue, as the alchemists use to attribute to their stone, for man's body; that it worketh all contrary effects, but still to the good and benefit of nature. But yet, without paying in aid of alchemists, there is a manifest image of this in the ordinary course of nature. For in bodies, union strengtheneth and cherissheth any natural action; and, on the other side, weakeneth and dulleth any violent impression; and even so is it of minds.

The second fruit of friendship is healthful and sovereign for the understanding, as the first is for the affections. For friendship maketh indeed a fair day in the affections, from storm and tempests; but it maketh day-light in the understanding, out of darkness and confusion of thoughts: neither is this to be under-



## ESSAYS CIVIL AND MORAL.

stood only of faithful counsel, which a man receiveth from his friend; but before you come to that, certain it is, that whosoever hath his mind fraught with many thoughts, his wits and understanding do clarify and break up in the communicating and discoursing with another: he tosseth his thoughts more easily: he marshalleth them more orderly; he seeth how they look when they are turned into words; finally, he waxeth wiser than himself; and that more by an hour's discourse, than by a day's meditation. It was well said by Themistocles to the king of Persia, That speech was like cloth of Arras, opened and put abroad, whereby the imagery doth appear in figure; whereas in thoughts they lie but as in packs. Neither is this second fruit of friendship, in opening the understanding, restrained only to such friends, as are able to give a man counsel (they indeed are best) but even, without that, a man learneth of himself, and bringeth his own thoughts to light, and whetted his wits as against a stone, which itself cuts not. In a word; a man were better relate himself to a statue, or picture, than to suffer his thoughts to pass in smother.

Add now, to make this second fruit of friendship complete, that other point which lieth more open, and falleth within vulgar observation; which is faithful counsel from a friend. Heracitus saith well in one of his aenigma's, Dry light is ever the best. And certain it is, that the light that a man receiveth by counsel from another, is drier and purer, than that which cometh from his own understanding and judgment; which is ever infused and drenched in his affections and customs. So as there is as much difference between the counsel that a friend giveth, and that a man giveth himself, as there is between the counsel of a friend, and of a flatterer. For there is no such flatterer as is a man's self; and there is no such remedy against flattery of a man's self, as the liberty of a friend. Counsel is of two sorts; the one concerning manners, the other concerning business. For the first, the best preservative to keep the mind in health, is the faithful admonition of a friend. The calling of a man's self to a strict account, is a medicine sometimes too piercing and corrosive. Reading good books of morality, is a little flat and dead. Observing our faults in others, is sometimes improper for our case: but the best receipt (best, I say, to work, and best to take) is the admonition of a friend. It is a strange thing to behold what gross errors and extreme absurdities many (especially of the greater sort) do commit, for want of a friend to tell them of them; to the great damage both of their fame and fortune. For, as St. James saith, they are as men *that look sometimes into a glass, and presently forget their own shape and favour*: as for business, a man may think if he will, that two eyes see no more than one; or that a gamester seeth always more than a looker on; or that a man in anger is as wise as he that hath said over the four and twenty letters; or that a musket may be shot off, as well upon the arm, as upon a rest; and such other fond and high imaginations, to think himself all in all. But when all is done, the help of good counsel is that which setteth business straight. And if any man think, that he will take counsel, but it shall be by pieces; asking counsel in one business of one man, and in another business of another man; it is well (that is to say, better perhaps than if he asked none at all) but he runneth two dangers: one, that he shall not be faithfully counselled; for it is a rare thing, except it be from a perfect and entire friend, to have counsel given, but such as shall be bowed and crooked to some ends which he hath that giveth it. The other, that he shall have counsel given, hurtful and unsafe (though with good meaning) and mixed partly of mischief, and partly of remedy: even as if you would call a physician that is thought good for the cure of the disease you complain of, but is unacquainted with your body; and therefore may put you in way for a present cure, but overthroweth your health in some other kind, and so cure the disease and kill the patient. But a friend that is wholly acquainted with a man's estate, will beware by furthering any present business how he dasheth upon other inconvenience. And therefore rest not upon scattered counsels; they will rather distract and mislead, than settle and direct.

After these two noble fruits of friendship (peace in the affections, and support of the judgment) followeth the last fruit, which is like the pomegranate, full of many kernels; I mean aid, and bearing a part in all actions and occasions. Here



the best way to represent to life the manifold use of friendship, is to cast and see how many things there are, which a man cannot do himself; and then it will appear that it was a sparing speech of the ancients to say, That a friend is another himself: for that a friend is far more than himself. Men have their time, and die many times in desire of some things which they principally take to heart; the bestowing of a child, the finishing of a work, or the like. If a man have a true friend, he may rest almost secure, that the care of those things will continue after him. So that a man hath as it were two lives in his desires. A man hath a body, and that body is confined to a place; but where friendship is, all offices of life are as it were granted to him and his deputy: for he may exercise them by his friend. How many things are there, which a man cannot, with any face or comeliness, say or do himself? A man can scarce alledge his own merits with modesty, much less extol them: a man cannot sometimes brook to supplicate or beg; and a number of the like. But all these things are graceful in a friend's mouth, which are blushing in a man's own. So again, a man's person hath many proper relations, which he cannot put off. A man cannot speak to his son, but as a father; to his wife, but as a husband; to his enemy, but upon terms: whereas a friend may speak as the case requires, and not as it forceth with the person. But to enumerate these things were endless; I have given the rule, where a man cannot fitly play his own part; if he have not a friend, he may quit the stage.

### XXVIII. Of EXPENCE.

**R**ICHES are for spending; and spending for honour and good actions. Therefore extraordinary expence must be limited by the worth of the occasion; for voluntary undoing may be as well for a man's country, as for the kingdom of heaven. But ordinary expence ought to be limited by a man's estate, and governed with such regard as it be within his compass; and not subject to deceit and abuse of servants; and ordered to the best shew, that the bills may be less than the estimation abroad. Certainly if a man will keep but of even hand, his ordinary expences ought to be but to the half of his receipts; and if he think to wax rich, but to the third part. It is no baseness for the greatest, to descend and look into their own estate. Some forbear it, not upon negligence alone, but doubting to bring themselves into melancholy, in respect they shall find it broken. But wounds cannot be cured without searching. He that cannot look into his own estate at all, had need both chuse well those whom he employeth, and change them often: for new are more timorous and less subtle. He that can look into his estate but seldom, it becometh him to turn all to certainties. A man had need, if he be plentiful in some kind of expence, to be as saving again in some other. As if he be plentiful in diet, to be saving in apparel: if he be plentiful in the hall, to be saving in the stable: and the like. For he that is plentiful in expences of all kinds, will hardly be preserved from decay. In clearing of a man's estate, he may as well hurt himself in being too sudden, as in letting it run on too long: for hasty selling is commonly as disadvantageable as interest. Besides, he that clears at once will relapse; for finding himself out of straits, he will revert to his customs: but he that cleareth by degrees induceth a habit of frugality, and gaineth as well upon his mind as upon his estate. Certainly, who hath a state to repair, may not despise small things: and commonly, it is less dishonourable to abridge petty charges, than to stoop to petty gettings. A man ought warily to begin charges, which once begun will continue; but in matters that return not, he may be more magnificent.

### XXIX. Of the TRUE GREATNESS of KINGDOMS and ESTATES.

**T**HE speech of Themistocles the Athenian, which was haughty and arrogant in taking so much to himself, had been a grave and wise observation and censure, applied at large to others. Desired at a feast to touch a lute, he said, He could not stifle, but yet he could make a small town a great city. These words



words (holpen a little with a metaphor) may exprefs two differing abilities in thofe that deal in buſineſs of eſtate. For if a true ſurvey be taken of counſellors and ſtateſmen, there may be found (though rarely) thoſe which can make a ſmall ſtate great, and yet cannot fiddle; as on the other ſide, there will be found a great many that can fiddle very cunningly, but yet are ſo far from being able to make a ſmall ſtate great, as their gift lieth the other way; to bring a great and flouriſhing eſtate to ruin and decay. And certainly thoſe degenerate arts and ſhifts, whereby many counſellors and governors gain both favour with their maſters, and eſtimation with the vulgar, deſerve no better name than fiddling; being things rather pleaſing for the time, and graceful to themſelves only, than tending to the weal and advancement of the ſtate which they ſerve. There are alſo (no doubt) counſellors and governors which may be held ſufficient (*negotii pares*) able to manage affairs, and to keep them from precipices and manifeſt inconveniences, which nevertheleſs are far from the ability to raiſe and amplify an eſtate, in power, means, and fortune. But be the workmen what they may be, let us ſpeak of the work; that is, the true greatneſs of kingdoms and eſtates, and the means thereof. An argument fit for great and mighty princes to have in their hand; to the end, that neither by over-measuring their forces they loſe themſelves in vain enterprizes; nor on the other ſide, by undervaluing them, they deſcend to fearful and puſillanimous counſels.

The greatneſs of an eſtate in bulk and territory doth fall under meaſure, and the greatneſs of finances and revenue doth fall under computation. The population may appear by muſters; and the number and greatneſs of cities and towns by cards and maps. But yet there is not any thing amongſt civil affairs more ſubject to error, than the right valuation and true judgment concerning the power and forces of an eſtate. The kingdom of heaven is compared, not to any great kernel or nut, but to a grain of muſtard-ſeed; which is one of the leaſt grains, but hath in it a property and ſpirit haſtily to get up and ſpread. So are there ſtates, great in territory, and yet not apt to enlarge or command; and ſome that have but a ſmall dimenſion of ſtem, and yet apt to be the foundations of great monarchies.

Walled towns, ſtored arsenals and armouries, goodly races of horſe, chariots of war, elephants, ordnance, artillery, and the like: all this is but a ſheep in a lion's ſkin, except the breed and diſpoſition of the people be ſtout and warlike. Nay, number (itſelf) in armies, importeth not much, where the people is of weak courage: for (as Virgil ſaith) it never troubles a wolf how many the ſheep be. The army of the Perſians, in the plains of Arbela, was ſuch a vaſt ſea of people, as it did ſomewhat aſtoniſh the commanders in Alexander's army; who came to him therefore, and wiſhed him to ſet upon them by night; but he answered, He would not pilfer the victory: and the defeat was eaſy. When Tigranes the Armenian, being encamped upon a hill with four hundred thouſand men, diſcovered the army of the Romans, being not above fourteen thouſand, marching towards him; he made himſelf merry with it, and ſaid, "Yonder men are too many for an ambaffage, and too few for a fight." But before the ſun ſet, he found them enow to give him the chafe, with infinite laughter. Many are the examples of the great odds between number and courage: ſo that a man may truly make a judgment, that the principal point of greatneſs in any ſtate is to have a race of military men. Neither is money the ſinews of war (as it is trivially ſaid) where the ſinews of mens arms, in baſe and effeminate people, are failing. For Solon ſaid well to Creuſus (when in oſtentation he ſhewed him his gold) "Sir, if any other come that hath better iron than you, he will be maſter of all this gold." Therefore let any prince or ſtate think ſoberly of his forces, except his militia of natives be of good and valiant ſoldiers. And let princes, on the other ſide, that have ſubjects of martial diſpoſition, know their own ſtrength, unleſs they be otherwiſe wanting unto themſelves. As for mercenary forces (*which* is the help in this caſe) all examples ſhew, that whatſoever eſtate or prince doth reſt upon them, he may ſpread his feathers for a time, but he will mew them ſoon after.

The bleſſing of Judah and Iſſachar will never meet; that the ſame people or nation



nation should be both the lion's whelp, and the ass between burthens. Neither will it be, that a people over-laid with taxes should ever become valiant and martial. It is true, that taxes levied by consent of the estate, do abate mens courages; as it hath been seen notably in the excises of the Low Countries; and, in some degree, in the subsidies of England. For you must note, that we speak now of the heart, and not of the purse. So that although the same tribute and tax, laid by consent, or by imposing, be all one to the purse, yet it works diversly upon the courage. So that you may conclude, that no people over-charged with tribute is fit for empire.

Let states that aim at greatness, take heed how their nobility and gentlemen do multiply too fast: for that maketh the common subject grow to be a peasant and base swain, driven out of heart, and in effect but the gentleman's labourer. Even as you may see in coppice woods; if you leave your staddles too thick, you shall never have clean underwood, but shrubs and bushes. So in countries, if the gentlemen be too many, the commons will be base; and you will bring it to that, that not the hundred poll will be fit for an helmet; especially as to the infantry, which is the nerve of an army: and so there will be great population, and little strength. This which I speak of, hath been no where better seen, than by comparing of England and France; whereof England, though far less in territory and population, hath been (nevertheless) an overmatch; in regard the middle people of England make good soldiers, which the peasants of France do not. And herein the device of king Henry the seventh (whereof I have spoken largely in the history of his life) was profound and admirable; in making farms, and houses of husbandry, of a standard; that is, maintained with such a proportion of land unto them, as may breed a subject to live in convenient plenty, and no servile condition; and to keep the plough in the hands of the owners, and not mere hirelings. And thus indeed you shall attain to Virgil's character, which he gives to ancient Italy:

*Terra potens armis atque ubere glebae.*

Neither is that state (which, for any thing I know, is almost peculiar to England, and hardly to be found any where else, except it be perhaps in Poland) to be passed over; I mean the state of free servants, and attendants upon noblemen and gentlemen, which are no ways inferior unto the yeomanry for arms: and therefore out of all question, the splendor and magnificence, and great retinues, and hospitality of noblemen and gentlemen, received into custom, doth much conduce unto martial greatness: whereas, contrariwise, the close and reserved living of noblemen and gentlemen causeth a penury of military forces.

By all means it is to be procured, that the trunk of Nebuchadnezzar's tree of monarchy be great enough to bear the branches and the boughs; that is, that the natural subjects of the crown or state bear a sufficient proportion to the stranger subjects that they govern. Therefore all states, that are liberal of naturalization towards strangers, are fit for empire. For to think that an handful of people can, with the greatest courage and policy in the world, embrace too large extent of dominion, it may hold for a time, but it will fail suddenly. The Spartans were a nice people in point of naturalization; whereby, while they kept their compass, they stood firm; but when they did spread, and their boughs were become too great for their stem, they became a windfall upon the sudden. Never any state was, in this point, so open to receive strangers into their body, as were the Romans; therefore it sorted with them accordingly, for they grew to the greatest monarchy. Their manner was to grant naturalization (which they called *jus civitatis*) and to grant it in the highest degree, that is, not only *jus commercii*, *jus conubii*, *jus haereditatis*; but also, *jus suffragii*, and *jus honorum*: and this not to singular persons alone, but likewise to whole families; yea, to cities, and sometimes to nations. Add to this, their custom of plantation of colonies, whereby the Roman plant was removed into the soil of other nations: and putting both constitutions together, you will say, that it was not the Romans that spread upon the world, but it was the world that spread upon the Romans: and that was the sure way of greatness. I have marvelled sometimes at Spain, how they clasp and contain so large dominions, with so few natural Spaniards: but sure,



the whole compass of Spain is a very great body of a tree, far above Rome and Sparta at the first. And besides, though they have not had that usage, to naturalize liberally, yet they have that which is next to it: that is, to employ, almost indifferently, all nations, in their militia of ordinary soldiers; yea, and sometimes in their highest commands. Nay, it seemeth at this instant, they are sensible of this want of natives; as by the pragmatical sanction, now published, appeareth.

It is certain, that sedentary and within-door arts, and delicate manufactures (that require rather the finger than the arm) have in their nature a contrariety to a military disposition. And generally all warlike people are a little idle, and love danger better than travail: neither must they be too much broken of it, if they shall be preserved in vigour. Therefore it was great advantage in the ancient states of Sparta, Athens, Rome, and others, that they had the use of slaves, which commonly did rid those manufactures. But that is abolished, in greatest part, by the christian law. That which cometh nearest to it, is, to leave those arts chiefly to strangers (which for that purpose are the more easily to be received) and to contain the principal bulk of the vulgar natives within those three kinds; tillers of the ground, free-servants, and handicraftsmen of strong and manly arts, as smiths, masons, carpenters, *etc.* not reckoning professed soldiers.

But above all, for empire and greatness, it importeth most, that a nation do profess arms as their principal honour, study, and occupation. For the things which we formerly have spoken of, are but habitations towards arms: and what is habilitation without intention and act? Romulus, after his death (as they report or feign) sent a present to the Romans, that above all they should intend arms, and then they should prove the greatest empire of the world. The fabrick of the state of Sparta was wholly (though not wisely) framed and composed to that scope and end. The Persians and Macedonians had it for a flash. The Gauls, Germans, Goths, Saxons, Normans, and others, had it for a time. The Turks have it at this day, though in great declination. Of Christian Europe they that have it, are in effect only the Spaniards. But it is so plain, that every man profiteth in that he most intendeth, that it needeth not to be stood upon. It is enough to point at it; that no nation, which doth not directly profess arms, may look to have greatness fall into their mouths. And on the other side, it is a most-certain oracle of time, that those states that continue long in that profession (as the Romans and Turks principally have done) do wonders: and those that have professed arms but for an age, have notwithstanding commonly attained that greatness in that age, which maintained them long after, when their profession and exercise of arms hath grown to decay.

Incident to this point is, for a state to have those laws or customs, which may reach forth unto them just occasions (as may be pretended) of war. For there is that justice imprinted in the nature of men, that they enter not upon wars (whereof so many calamities do ensue) but upon some, at the least specious, grounds and quarrels. The Turk hath at hand, for cause of war, the propagation of his law or sect; a quarrel that he may always command. The Romans, though they esteemed the extending the limits of their empire to be great honour to their generals, when it was done; yet they never rested upon that alone to begin a war. First therefore, let nations that pretend to greatness have this, that they be sensible of wrongs, either upon borderers, merchants, or politick ministers; and that they sit not too long upon a provocation. Secondly, let them be prest, and ready to give aids and succours to their confederates; as it ever was with the Romans: inasmuch, as if the confederate had leagues defensive with divers other states, and, upon invasion offered, did implore their aids severally, yet the Romans would ever be the foremost, and leave it to none other to have the honour. As for the wars, which were anciently made on the behalf of a kind of party, or tacit conformity of estate, I do not see how they may be well justified; as when the Romans made a war for the liberty of Græcia; or when the Lacedæmonians and Athenians made wars, to set up or pull down democracies and oligarchies: or when wars were made by foreigners, under the pretence of justice, or protection, to deliver the subjects of others from tyranny and oppression; and the



the like. Let it suffice, that no estate expect to be great, that is not awake upon any just occasion of arming.

No body can be healthful without exercise, neither natural body nor politick: and certainly, to a kingdom or estate, a just and honourable war is the true exercise. A civil war, indeed, is like the heat of a fever; but a foreign war is like the heat of exercise, and serveth to keep the body in health. For in a slothful peace, both courages will effeminate, and manners corrupt. But howsoever it be for happiness, without all question, for greatness it maketh, to be still, for the most part, in arms: and the strength of a veteran army (though it be a chargeable business) always on foot, is that which commonly giveth the law, or at least the reputation amongst all neighbour states, as may well be seen in Spain; which hath had, in one part or other, a veteran army, almost continually, now by the space of six-score years.

To be master of the sea, is an abridgment of a monarchy. Cicero writing to Atticus, of Pompey his preparation against Caesar, saith, *Consilium Pompeii plane Themiscloem est; putat enim, qui mari potitur, eum rerum potiri*. And without doubt Pompey had tired out Caesar, if upon vain confidence he had not left that way. We see the great effects of battels by sea. The battle of Actium decided the empire of the world. The battle of Lepanto arrested the greatness of the Turk. There be many examples, where sea-fights have been final to the war; but this is, when princes or states have set up their rest upon the battels. But thus much is certain; that he that commands the sea is at great liberty, and may take as much and as little of the war as he will. Whereas those that be strongest by land, are many times, nevertheless, in great straits. Surely, at this day, with us of Europe, the vantage of strength at sea (which is one of the principal dowries of this kingdom of Great Britain) is great: both because most of the kingdoms of Europe are not merely inland, but girt with the sea, most part of their compass; and because the wealth of both Indies seems in great part but an accessory to the command of the seas.

The wars of latter ages seem to be made in the dark, in respect of the glory and honour which reflected upon men from the wars in ancient time. There be now, for martial encouragement, some degrees and orders of chivalry, which nevertheless are conferred promiscuously upon soldiers, and no soldiers; and some remembrance perhaps upon the escutcheon, and some hospitals for maimed soldiers, and such like things. But in ancient times, the trophies erected upon the place of the victory; the funeral laudatives and monuments for those that died in the wars; the crowns and garlands personal; the style of emperor, which the great kings of the world after borrowed; the triumphs of the generals upon their return; the great donatives and largesses upon the disbanding of the armies, were things able to enflame all mens courages: but above all, that of the triumph, among the Romans, was not pageants or gaudery, but one of the wisest and noblest institutions that ever was. For it contained three things; honour to the general; riches to the treasury out of the spoils; and donatives to the army. But that honour, perhaps, were not fit for monarchies; except it be in the person of the monarch himself, or his sons; as it came to pass in the times of the Roman emperors, who did appropriate the actual triumphs to themselves and their sons, for such wars as they did achieve in person; and lest only, for wars achieved by subjects, some triumphal garments and ensigns to the general.

To conclude: no man can, by *care taking* (as the Scripture saith) *add a cubit to his stature*, in this little model of a man's body: but in the great frame of kingdoms, and commonwealths, it is in the power of princes, or estates, to add amplitude and greatness to their kingdoms. For by introducing such ordinances, constitutions, and customs, as we have now touched, they may sow greatness to their posterity and succession. But these things are commonly not observed, but left to take their chance.



XXX. *Of Regiment of Health.* 223

HERE is a wisdom in this beyond the rules of physick: a man's own observation, what he finds good of, and what he finds hurtful, is the best physick to preserve health. But it is a safer conclusion to say, "This agreeth not well with me, therefore I will not continue it;" than this, "I find no offence of this, therefore I may use it." For strength of nature in youth passeth over many excesses, which are owing a man till his age. Discern of the coming on of years, and think not to do the same things still; for age will not be defied. Beware of sudden change in any great point of diet, and if necessity enforce it, fit the rest to it. For it is a secret both in nature and state, that it is safer to change many things than one. Examine thy customs of diet, sleep, exercise, apparel, and the like; and try in any thing thou shalt judge hurtful, to discontinue it by little and little; but so, as if thou dost find any inconvenience by the change, thou come back to it again: for it is hard to distinguish that which is generally held good and wholesome, from that which is good particularly, and fit for thine own body. To be free-minded, and cheerfully disposed, at hours of meat, and of sleep, and of exercise, is one of the best precepts of long lasting. As for the passions and studies of the mind, avoid envy, anxious fears, anger fretting inwards, subtle and knotty inquisitions, joys and exhilarations in excess, sadnesses not communicated. Entertain hopes, mirth rather than joy, variety of delights, rather than surfeit of them; wonder and admiration, and therefore novelties; studies that fill the mind with splendid and illustrious objects, as histories, fables, and contemplations of nature. If you fly physick in health altogether, it will be too strange for your body when you shall need it. If you make it too familiar, it will work no extraordinary effect when sickness cometh. I commend rather some diet for certain seasons, than frequent use of physick, except it be grown into a custom. For those diets alter the body more, and trouble it less. Despire no new accident in your body, but ask opinion of it. In sickness, respect health principally; and in health, action. For those that put their bodies to endure in health, may in most sicknesses which are not very sharp, be cured only with diet, and tendering. Celsus could never have spoken it as a physician, had he not been a wise man withal; when he giveth it for one of the great precepts of health and lasting, that a man do vary and interchange contraries; but with an inclination to the more benign extreme. Use fasting and full eating, but rather full eating; watching and sleep, but rather sleep; sitting and exercise, but rather exercise; and the like. So shall nature be cherished, and yet taught masteries. Physicians are some of them so pleasing and conformable to the humour of the patient, as they prels not the true cure of the disease; and some other are so regular in proceeding according to art for the disease, as they respect not sufficiently the condition of the patient. Take one of a middle temper; or if it may not be found in one man, combine two of either sort; and forget not to call as well the best acquainted with your body, as the best reputed of for his faculty.

XXXI. *Of Suspicion.*

SUSPICIONS amongst thoughts, are like bats amongst birds, they ever fly by twilight. Certainly they are to be repressed, or at the least well guarded: for they cloud the mind, they lose friends, and they check with business, whereby business cannot go on currently and constantly. They dispose kings to tyranny, husbands to jealousy, wise men to irresolution and melancholy. They are defects, not in the heart, but in the brain; for they take place in the stoutest natures; as in the example of Henry the seventh of England; there was not a more suspicious man, nor a more stout. And in such a composition they do small hurt. For commonly they are not admitted but with examination, whether they be likely or no? But in fearful natures they gain ground too fast. There is nothing makes a man suspect much, more than to know little: and therefore men should remedy suspicion, by procuring to know more, and not to keep their suspicions in smother.

What



What would men have? Do they think those they employ and deal with are saints? Do they not think they will have their own ends, and be truer to themselves than to them? Therefore there is no better way to moderate suspicions, than to account upon such suspicions as true, and yet to bridle them as false: for so far a man ought to make use of suspicions, as to provide, as if that should be true that he suspects, yet it may do him no hurt. Suspicions that the mind of itself gathers, are but buzzes; but suspicions that are artificially nourished, and put into mens heads by the tales and whisperings of others, have stings. Certainly the best mean to clear the way in this same wood of suspicions, is frankly to communicate them with the party that he suspects; for thereby he shall be sure to know more of the truth of them than he did before; and withal shall make that party more circumspect, not to give farther cause of suspicion. But this would not be done to men of base natures: for they, if they find themselves once suspected, will never be true. The Italian says, *Sospetto licentia fede*; as if suspicion did give a passport to faith; but it ought rather to kindle it to discharge itself.

### XXXII. Of Discourse.

SOME in their discourse desire rather commendation of wit, in being able to hold all arguments, than of judgment in discerning what is true: as if it were a praise to know what might be said, and not what should be thought. Some have certain common-places and themes, wherein they are good, and want variety: which kind of poverty is for the most part tedious, and, when it is once perceived, ridiculous. The honourablest part of talk is to give the occasion; and again to moderate and pass to somewhat else; for then a man leads the dance. It is good in discourse, and speech of conversation, to vary, and inter-mingle speech of the present occasion with arguments; tales with reasons; asking of questions, with telling of opinions; and jest with earnest: for it is a dull thing to tire, and, as we say now, to jade any thing too far. As for jest, there be certain things which ought to be privileged from it; namely, religion, matters of state, great persons, any man's present business of importance, and any case that deserveth pity. Yet there be some that think their wits have been asleep, except they dart out somewhat that is piquant, and to the quick: that is a vein which would be bridled;

*Parce puer stimulis, et fortius ure loris.*

And generally men ought to find the difference between saltness and bitterness. Certainly he that hath a satirical vein, as he maketh others afraid of his wit, so he had need be afraid of others memory. He that questioneth much shall learn much, and content much; but especially if he apply his questions to the skill of the persons whom he asketh: for he shall give them occasion to please themselves in speaking, and himself shall continually gather knowledge. But let his questions not be troublesome, for that is fit for a poser. And let him be sure to leave other men their turns to speak. Nay, if there be any that would reign, and take up all the time, let him find means to take them off, and to bring others on; as musicians use to do with those that dance too long galliards. If you dissemble sometimes your knowledge of that you are thought to know, you shall be thought another time to know that you know not. Speech of a man's self ought to be seldom, and well chosen. I knew one was wont to say in scorn, "He must needs be a wise man, he speaks so much of himself:" and there is but one case wherein a man may commend himself with good grace, and that is in commending virtue in another; especially if it be such a virtue whereunto himself pretendeth. Speech of touch towards others, should be sparingly used: for discourse ought to be as a field, without coming home to any man. I knew two noblemen of the west part of England, whereof the one was given to scoff, but kept ever royal cheer in his house; the other would ask of those that had been at the other's table, "Tell truly, was there never a stout or dry blow given?" To which the guest would answer; Such and such a thing passed. The lord would say, "I thought he would mar a good dinner." Discretion of speech is more than eloquence; and to speak agreeably to him with whom we deal,



## ESSAYS CIVIL AND MORAL.

is more than to speak in good words, or in good order. A good continued speech, without a good speech of interlocation, shews slowness: and a good reply, or second speech, without a good settled speech, sheweth shallowness and weakness. As we see in beasts, that those that are weakest in the course, are yet nimblest in the turn: as it is betwixt the grey-hound and the hare. To use too many circumstances ere one come to the matter, is wearisome; to use none at all, is blunt.

## XXXIII. Of PLANTATIONS.

**PLANTATIONS** are amongst ancient, primitive, and heroical works. When the world was young, it begat more children; but now it is old, it begets fewer: for I may justly account new plantations to be the children of former kingdoms. I like a plantation in a pure soil; that is, where people are not displanted to the end to plant in others. For else it is rather an extirpation, than a plantation. Planting of countries is like planting of woods; for you must make account to lose almost twenty years profit, and expect your recompence in the end. For the principal thing that hath been the destruction of most plantations, hath been the base and hasty drawing of profit in the first years. It is true, speedy profit is not to be neglected, as far as may stand with the good of the plantation, but no farther. It is a shameful and unblest thing, to take the sum of people, and wicked condemned men, to be the people with whom you plant; and not only so, but it spoileth the plantation; for they will ever live like rogues, and not fall to work, but be lazy, and do mischief, and spend victuals, and be quickly weary, and then certify over to their country to the discredit of the plantation. The people wherewith you plant, ought to be gardeners, ploughmen, labourers, smiths, carpenters, joyners, fishermen, fowlers, with some few apothecaries, surgeons, cooks, and bakers. In a country of plantation, first look about what kind of victual the country yields of itself to hand; as chestnuts, walnuts, pine-apples, olives, dates, plums, cherries, wild honey, and the like, and make use of them. Then consider what victual, or esculent things there are, which grow speedily, and within the year; as parsnips, carrots, turnips, onions, radishes, artichokes of Jerusalem, maiz, and the like. For wheat, barley, and oats, they ask too much labour: but with pease and beans you may begin; both because they ask less labour, and because they serve for meat, as well as for bread. And of rice likewise cometh a great increase, and it is a kind of meat. Above all, there ought to be brought store of bisket, cat-meal, flour, meal, and the like, in the beginning, till bread may be had. For beasts or birds, take chiefly such as are least subject to diseases, and multiply fastest: as swine, goats, cocks, hens, turkeys, geese, house-doves, and the like. The victual in plantations ought to be expended almost as in a besieged town; that is, with certain allowance. And let the main part of the ground employed to gardens or corn, be to a common stock; and to be laid in, and stored up, and then delivered out in proportion; besides some spots of ground that any particular person will manure for his own private. Consider likewise what commodities the soil where the plantation is doth naturally yield, that they may some way help to defray the charge of the plantation: so it be not, as was said, to the untimely prejudice of the main business; as it hath fared with tobacco in Virginia. Wood commonly aboundeth but too much; and therefore timber is fit to be one. If there be iron ore, and streams whereupon to set the mills; iron is a brave commodity where wood aboundeth. Making of bay-salt, if the climate be proper for it, would be put in experience. Growing-silk likewise, if any be, is a likely commodity. Pitch and tar, where store of firs and pines are, will not fail. So drugs, and sweet woods, where they are, cannot but yield great profit. Soap ashes likewise, and other things that may be thought of. But moil not too much under ground; for the hope of mines is very uncertain, and useth to make the planters lazy in other things. For government, let it be in the hands of one assisted with some counsel: and let them have commission to exercise martial laws with some limitation. And above all, let men make that profit of being in the wilderness, as they have God always, and his service, before



before their eyes. Let not the government of the plantation depend upon too many counsellors and undertakers in the country that planteth, but upon a temperate number; and let those be rather noblemen and gentlemen, than merchants; for they look ever to the present gain. Let there be freedoms from custom, till the plantation be of strength: and not only freedom from custom, but freedom to carry their commodities where they may make their best of them, except there be some special cause of caution. Cram not in people, by sending too fast, company after company; but rather hearken how they waste, and send supplies proportionably; but so as the number may live well in the plantation, and not by surcharge be in penury. It hath been a great endangering to the health of some plantations, that they have built along the sea and rivers, in marsh and unwholesome grounds. Therefore though you begin there to avoid carriage, and other like discomforts, yet build still rather upwards from the streams, than along. It concerneth likewise the health of the plantation, that they have good store of salt with them, that they may use it in their victuals when it shall be necessary. If you plant where savages are, do not only entertain them with trifles and gingles; but use them justly and graciously, with sufficient guard nevertheless: and do not win their favour by helping them to invade their enemies, but for their defence it is not amiss. And send oft of them over to the country that plants, that they may see a better condition than their own, and commend it when they return. When the plantation grows to strength, then it is time to plant with women, as well as with men; that the plantation may spread into generations; and not be ever pieced from without. It is the sinfulness thing in the world, to forsake or destitute a plantation once in forwardness: for besides the dishonour, it is the guiltiness of blood of many miserable persons.

### XXXIV. OF RICHES.

I Cannot call riches better than the baggage of virtue. The Roman word is better, *impedimenta*. For as the baggage is to an army, so are riches to virtue. It cannot be spared, nor left behind, but it hindreth the march; yea, and the care of it, sometimes, loseth or disturbeth the victory: of great riches there is no real use, except it be in the distribution; the rest is but conceit. So saith Solomon; *Where much is, there are many to consume it; and what hath the owner, but the sight of it with his eyes?* The personal fruition in any man, cannot reach to feel great riches: there is a custody of them; or a power of dole and donative of them; or a fame of them; but no solid use to the owner. Do you not see what feigned prices are set upon little stones and rarities? And what works of ostentation are undertaken, because there might seem to be some use of great riches? But then you will say they may be of use, to buy men out of dangers or troubles. As Solomon saith, *Riches are as a strong hold, in the imagination of the rich man*. But this is excellently expressed, that it is in imagination, and not always in fact. For certainly great riches have sold more men than they have bought out. Seek not proud riches, but such as thou mayst get justly, use soberly, distribute cheerfully, and leave contentedly. Yet have no abstract nor friarly contempt of them: but distinguish, as Cicero saith well of Rabinus Posthumus; *in studio rei amplexandae, apparebat, non avaritiae praedam, sed instrumentum bonitatis quaeri*. Hearken also to Solomon, and beware of hasty gathering of riches: *Qui festinat ad divitias, non erit insons*. The poets feign, that when Plutus (which is riches) is sent from Jupiter, he limps, and goes slowly; but when he is sent from Pluto, he runs, and is swift of foot: meaning, that riches gotten by good means and just labour, pace slowly; but when they come by the death of others (as by the course of inheritance, testaments, and the like) they come tumbling upon a man. But it might be applied likewise to Pluto, taking him for the devil. For when riches come from the devil (as by fraud, and oppression, and unjust means) they come upon speed. The ways to enrich are many, and most of them foul. Parsimony is one of the best, and yet is not innocent: for it withholdeth men from works of liberality and charity. The improvement of the ground is the most natural obtaining of riches;

for



for it is our great mother's blessing, the earth's; but it is slow. And yet, where men of great wealth do stoop to husbandry, it multiplieth riches exceedingly. I knew a nobleman in England, that had the greatest audits of any man in my time; a great grafter, a great sheep-master, a great timber-man, a great collier, a great corn-master, a great lead-man; and so of iron, and a number of the like points of husbandry: so as the earth seemed a sea to him, in respect of the perpetual importation. It was truly observed by one, that himself came very hardly to a little riches, and very easily to great riches. For when a man's stock is come to that, that he can expect the prime of markets, and overcome those bargains, which for their greatness are few mens money, and be partner in the industries of younger men, he cannot but encrease mainly. The gains of ordinary trades and vocations are honest, and furthered by two things, chiefly, by diligence, and by a good name for good and fair dealing. But the gains of bargains are of a more doubtful nature, when men should wait upon others necessity; broke by servants and instruments to draw them on; put off others cunningly that would be better chapmen, and the like practices, which are crafty and naughty. As for the chopping of bargains, when a man buys, not to hold, but to sell over again, that commonly grindeth double, both upon the seller, and upon the buyer. Sharings do greatly enrich, if the hands be well chosen that are trusted. Usury is the certainest means of gain, though one of the worst, as that whereby a man doth eat his bread *in sudore vultus alieni*; and besides, doth plough upon Sundays. But yet certain though it be, it hath flaws; for that the scriveners and brokers do value unsound men, to serve their own turn. The fortune in being the first in an invention, or in a privilege, doth cause sometimes a wonderful overgrowth in riches; as it was with the first sugar-man in the Canaries. Therefore, if a man can play the true logician, to have as well judgment as invention, he may do great matters, especially if the times be fit. He that resteth upon gains certain, shall hardly grow to great riches. And he that puts all upon adventures, doth oftentimes break, and come to poverty: it is good therefore to guard adventures with certainties that may uphold losses. Monopolies, and co-emption of wares for resale, where they are not restrained, are great means to enrich; especially if the party have intelligence what things are like to come into request, and so store himself before-hand. Riches gotten by service, though it be of the best rise, yet when they are gotten by flattery, feeding humours, and other servile conditions, they may be placed amongst the worst. As for fishing for testaments and executorships (as Tacitus saith of Seneca, *Testamenta et orbos tanquam indagine capi*) it is yet worse; by how much men submit themselves to meaner persons, than in service. Believe not much them that seem to despise riches; for they despise them that despair of them; and none worse when they come to them. Be not penny-wise; riches have wings, and sometimes they fly away of themselves, sometimes they must be set flying to bring in more. Men leave their riches either to their kindred, or to the publick: and moderate portions prosper best in both. A great estate left to an heir, is as a lure to all the birds of prey round about, to seize on him, if he be not the better stablished in years and judgment. Likewise glorious gifts and foundations, are like sacrifices without salt; and but the painted sepulchres of alms, which soon will putrefy and corrupt inwardly. Therefore measure not thine advancements by quantity, but frame them by measure; and defer not charities till death: for certainly, if a man weigh it rightly, he that doth so, is rather liberal of another man's, than of his own.

#### XXXV. Of PROPHECIES.

I Mean not to speak of divine prophecies, nor of heathen oracles, nor of natural predictions; but only of prophecies that have been of certain memory, and from hidden causes. Saith the Pythonissa to Saul; *To-morrow thou and thy son shall be with me.* Virgil hath these verses from Homer:

*At domus Aeneae cunctis dominabitur oris,  
Et nati matorum, et qui nascentur ab illis.* Aeneid. iii. 97.



A prophecy, as it seems, of the Roman empire. Seneca the Tragedian hath these verses:

*Veniens annis*

*Secula feris, quibus oceanus*

*Vincula rerum laxet, et ingens*

*Pateat tellus, Tibiosque novos*

*Detegat orbem, nec sit terris*

*Ultima Thule:*

A prophecy of the discovery of America. The daughter of Polycrates dreamed, that Jupiter bathed her father, and Apollo anointed him: and it came to pass, that he was crucified in an open place, where the sun made his body run with sweat, and the rain washed it. Philip of Macedon dreamed, he sealed up his wife's belly; whereby he did expound it, that his wife should be barren: but Aristander the soothsayer told him, his wife was with child, because men do not use to seal vessels that are empty. A phantasm that appeared to M. Brutus in his tent, said to him; *Philippi iterum me videbis*. Tiberius said to Galba, *Tu quoque, Galba, degustabis imperium*. In Vespasian's time there went a prophecy in the east, that those that should come forth of Judaea, should reign over the world; which though it may be was meant of our Saviour, yet Tacitus expounds it of Vespasian. Domitian dreamed, the night before he was slain, that a golden head was growing out of the nape of his neck: and indeed the succession that followed him, for many years, made golden times. Henry the sixth of England said of Henry the seventh, when he was a lad, and gave him water; "This is the lad that shall enjoy the crown for which we strive." When I was in France, I heard from one Dr. Pena, that the queen-mother, who was given to curious arts, caused the king her husband's nativity to be calculated under a false name; and the astrologer gave a judgment, that he should be killed in a duel; at which the queen laughed, thinking her husband to be above challenges and duels: but he was slain, upon a course at tilt, the splinters of the staff of Montgomery going in at his beaver. The trivial prophecy, which I heard when I was a child, and queen Elizabeth was in the flower of her years, was;

*When Hempe is spome,*

*England's done.*

Whereby it was generally conceived, that after the princes had reigned, which had the principal letters of that word Hempe (which were Henry, Edward, Mary, Philip, and Elizabeth) England should come to utter confusion: which, thanks be to God, is verified only in the change of the name, for that the king's style is now no more of England, but of Britain. There was also another prophecy before the year of eighty eight, which I do not well understand:

*There shall be seen upon a day,*

*Between the haugh and the May,*

*The black fleet of Norway.*

*When that is come and gone,*

*England build houses of lime and stone,*

*For after wars shall you have none.*

It was generally conceived to be meant of the Spanish fleet that came in eighty eight. For that the King of Spain's surname, as they say, is Norway. The prediction of Regiomontanus,

*Ostogisimus octavus mirabilis annus:*

was thought likewise accomplished, in the sending of that great fleet, being the greatest in strength, though not in number, of all that ever swam upon the sea. As for Cleon's dream, I think it was a jest: it was, that he was devoured of a long dragon; and it was expounded of a maker of saulages, that troubled him exceedingly. There are numbers of the like kind; especially if you include dreams, and predictions of astrology. But I have set down these few only of certain credit, for example. My judgment is, that they ought all to be despised, and ought to serve but for winter talk by the fire-side. Though when I say despised, I mean it as for belief: for otherwise, the spreading or publishing



ing of them, is in no sort to be despised; for they have done much mischief. And I see many severe laws made to suppress them. That that hath given them grace, and some credit, consisteth in three things: first, that men mark when they hit, and never mark when they miss; as they do, generally, also of dreams. The second is, that probable conjectures, or obscure traditions, many times, turn themselves into prophecies: while the nature of man, which coveteth divination, thinks it no peril to foretel that, which indeed they do but collect; as that of Seneca's verse. For so much was then subject to demonstration, that the globe of the earth had great parts beyond the Atlantick, which might be probably conceived not to be all sea: and adding thereto, the tradition in Plato's *Timæus*, and his *Atlanticus*, it might encourage one to turn it to a prediction. The third and last (which is the great one) is, that almost all of them, being infinite in number, have been impossures, and by idle and crafty brains, merely contrived and feigned, after the event past.

### XXXVI. Of AMBITION.

**A**MBITION is like choler, which is an humour that maketh men active, earnest, full of alacrity, and stirring, if it be not stopped. But if it be stopped, and cannot have its way, it becometh adust, and thereby malign and venomous. So ambitious men, if they find the way open for their rising, and still get forward, they are rather busy than dangerous; but if they be checked in their desires, they become secretly discontent, and look upon men and matters with an evil eye, and are best pleased when things go backward; which is the worst property in a servant of a prince or state. Therefore it is good for princes, if they use ambitious men, to handle it so, as they be still progressive, and not retrograde; which, because it cannot be without inconvenience, it is good not to use such natures at all. For if they rise not with their service, they will take order to make their service fall with them. But since we have said it were good not to use men of ambitious natures, except it be upon necessity, it is fit we speak, in what cases, they are of necessity. Good commanders in the wars must be taken, be they never so ambitious: for the use of their service dispenseth with the rest; and to take a soldier without ambition, is to pull off his spurs. There is also great use of ambitious men, in being screens to princes, in matters of danger and envy: for no man will take that part, except he be like a seceded dove, that mounts and mounts, because he cannot see about him. There is use also of ambitious men in pulling down the greatness of any subject that over-tops: as Tiberius used Macro in the pulling down of Sejanus. Since therefore they must be used in such cases, there resteth to speak how they are to be bridled, that they may be less dangerous. There is less danger of them, if they be of mean birth, than if they be noble; and if they be rather harsh of nature, than gracious and popular; and if they be rather new raised, than grown cunning and fortified in their greatness. It is counted by some a weakness in princes to have favourites; but it is, of all others, the best remedy against ambitious great ones. For when the way of pleasuring and displeasuring lieth by the favourite, it is impossible any other should be over-great. Another means to curb them, is to balance them by others as proud as they. But then there must be some middle counsellors to keep things steady; for without that ballast the ship will roll too much. At the least, a prince may animate and inure some meaner persons, to be as it were scourges to ambitious men. As for the having of them obnoxious to ruin, if they be of fearful natures, it may do well: but if they be stout and daring, it may precipitate their designs, and prove dangerous. As for the pulling of them down, if the affairs require it, and that it may not be done with safety suddenly, the only way is, the interchange continually of favours and disgraces, whereby they may not know what to expect, and be as it were in a wood. Of ambitions, it is less harmful the ambition to prevail in great things, than that other to appear in every thing; for that breeds confusion, and marts business: but yet it is less danger to have an ambitious man stirring in business, than great dependances. He that seeketh to be eminent amongst able men,



men, hath a great task; but that is ever good for the publick. But he that plots to be the only figure amongst cyphers, is the decay of a whole age. Honour hath three things in it: the vantage ground to do good; the approach to kings and principal persons; and the raising of a man's own fortunes. He that hath the best of these intentions, when he aspireth, is an honest man; and that prince that can discern of these intentions in another that aspireth, is a wise prince. Generally let princes and states chuse such ministers as are more sensible of duty than of rising; and such as love business rather upon conscience, than upon bravery: and let them discern a busy nature from a willing mind.

### XXXVII. *Of Masques and Triumphs.*

THESE things are but toys to come amongst such serious observations. But yet since princes will have such things, it is better they should be graced with elegance, than daubed with cost. Dancing to song, is a thing of great state and pleasure. I understand it, that the song be in quire, placed aloft, and accompanied with some broken musick: and the ditty fitted to the device. Acting in song, especially in dialogues, hath an extreme good grace; I say acting, not dancing (for that is a mean and vulgar thing) and the voices of the dialogue would be strong and manly (a base, and a tenor; no treble) and the ditty high and tragical; not nice or dainty. Several quires placed one over against another, and taking the voice by catches, anthem-wise, give great pleasure. Turning dances into figure, is a childish curiosity. And generally let it be noted, that those things which I here set down, are such as do naturally take the sense, and not respect petty wonderments. It is true, the alterations of scenes, so it be quietly and without noise, are things of great beauty and pleasure; for they feed and relieve the eye before it be full of the same object. Let the scenes abound with light, specially coloured and varied: and let the masquers, or any other that are to come down from the scene, have some motions upon the scene itself before their coming down: for it draws the eye strangely, and makes it with great pleasure to desire to see that it cannot perfectly discern. Let the songs be loud and cheerful, and not chirpings or pulings. Let the musick likewise be sharp and loud, and well placed. The colours that shew best by candle-light, are white, carnation, and a kind of sea-water green; and ouches, or spangs, as they are of no great cost, so they are of most glory. As for rich embroidery, it is lost and not discerned. Let the suits of the masquers be graceful, and such as become the person when the vizards are off: not after examples of known attires; turks, soldiers, mariners, and the like. Let anti-masques not be long; they have been commonly of fools, satyrs, baboons, wild men, anticks, beasts, spirits, witches, ethiopes, pigmies, turquets, nymphs, rusticks, Cupids, statues moving, and the like. As for angels, it is not comical enough to put them in anti-masques; and any thing that is hideous, as devils, giants, is on the other side as unfit: but chiefly, let the musick of them be recreative, and with some strange changes. Some sweet odours suddenly coming forth without any drops falling, are in such a company, as there is steam and heat, things of great pleasure and refreshment. Double masques, one of men, another of ladies, addeth state and variety. But all is nothing except the room be kept clear and neat.

For juffs, and tourneys, and barriers, the glories of them are chiefly in the chariots, wherein the challengers make their entry; especially if they be drawn with strange beasts; as lions, bears, camels, and the like: or in the devices of their entrance, or in the bravery of their liveries; or in the goodly furniture of their horses and armour. But enough of these toys.

### XXXVIII. *Of Nature in Men.*

NATURE is often hidden, sometimes overcome, seldom extinguished. Force maketh nature more violent in the return; doctrine and discourse maketh nature less importune; but custom only doth alter and subdue nature. He that seeketh victory over his nature, let him not set himself too great, nor too small.



## E S S A Y S C I V I L A N D M O R A L.

small tasks ; for the first will make him dejected by often failings ; and the second will make him a small proceeder, though by often prevailings. And at the first, let him practise with helps, as swimmers do with bladders or rushes : but after a time, let him practise with disadvantages, as dancers do with thick shoes. For it breeds great perfection, if the practice be harder than the use. Where nature is mighty, and therefore the victory hard, the degrees had need be, first to stay and arrest nature in time ; like to him that would say over the four and twenty letters when he was angry : then to go less in quantity ; as if one should, in forbearing wine, come from drinking healths, to a draught at a meal ; and lastly, to discontinue altogether. But if a man have the fortitude and resolution to enfranchise himself at once, that is the best :

*Optimus ille animi vindeus, laedentia pectus*

*Vincula qui rupit, dedoluitque semel.*

Neither is the ancient rule amiss, to bend nature as a wand to a contrary extreme, whereby to set it right : understanding it where the contrary extreme is no vice. Let not a man force a habit upon himself with a perpetual continuance, but with some intermission. For both the pause reinforce the new onset ; and if a man that is not perfect, be ever in practice, he shall as well practise his errors as his abilities, and induce one habit of both : and there is no means to help this but by seasonable intermissions. But let not a man trust his victory over his nature too far ; for nature will lie buried a great time, and yet revive upon the occasion or temptation. Like as it was with Æsop's damsel, turned from a cat to a woman, who sat very demurely at the board's end, till a mouse ran before her. Therefore let a man either avoid the occasion altogether, or put himself often to it, that he may be little moved with it. A man's nature is best perceived, in privateness, for there is no affectation ; in passion, for that putteth a man out of his precepts ; and in a new case or experiment, for there custom leaveth him. They are happy men, whose natures sort with their vocations ; otherwise they may say, *Mulum incola fuit anima mea* : when they converse in those things they do not affect. In studies, whatsoever a man commandeth upon himself, let him set hours for it ; but whatsoever is agreeable to his nature, let him take no care for any set times : for his thoughts will fly to it of themselves ; so as the spaces of other business or studies will suffice. A man's nature runs either to herbs, or weeds : therefore let him seasonably water the one, and destroy the other.

XXXIX. *Of Custom and Education.*

**M**ENS thoughts are much according to their inclination ; their discourse and speeches according to their learning and infused opinions ; but their deeds are after as they have been accustomed. And therefore, as Machiavel well noteth (though in an evil-favoured instance) there is no trusting to the force of nature, nor to the bravery of words ; except it be corroborate by custom. His instance is, that for the atchieving of a desperate conspiracy, a man should not rest upon the fierceness of any man's nature, or his resolute undertakings ; but take such an one as hath had his hands formerly in blood. But Machiavel knew not of a friar Clement, nor a Ravillac, nor a Jauregny, nor a Baltazar Gerard : yet his rule holdeth still, that nature, nor the engagement of words, are not so forcible as custom. Only superstition is now so well advanced, that men of the first blood are as firm as butchers by occupation : and votary resolution is made equipollent to custom, even in matter of blood. In other things, the predominancy of custom is every where visible ; inasmuch as a man would wonder to hear men profess, protest, engage, give great words, and then do just as they have done before : as if they were dead images, and engines moved only by the wheels of custom. We see also the reign or tyranny of custom what it is. The Indians (I mean the sect of their wise men) lay themselves quietly upon a stack of wood, and so sacrifice themselves by fire. Nay, the wives strive to be burned with the corps of their husbands. The lads of Sparta, of ancient time, were wont to be scourged upon the altar of Diana, without so much as queching. I remember in the  
beginning



beginning of queen Elizabeth's time of England, an Irish rebel condemned put up a petition to the deputy, that he might be hanged in a with, and not in an halter, because it had been so used with former rebels. There be monks in Russia, for penance, that will sit a whole night in a vessel of water, till they be engaged with hard ice. Many examples may be put of the force of custom, both upon mind and body. Therefore since custom is the principal magistrate of man's life, let men by all means endeavour to obtain good customs. Certainly custom is most perfect, when it beginneth in young years: this we call education, which is, in effect, but an early custom. So we see in languages, the tongue is more pliant to all expressions and sounds, the joints are more supple to all feats of activity and motions, in youth than afterwards. For it is true, that late learners cannot so well take the ply, except it be in some minds that have not suffered themselves to fix, but have kept themselves open and prepared to receive continual amendment, which is exceeding rare. But if the force of custom simple and separate, be great; the force of custom copulate and conjoined, and collegiate, is far greater. For there example teacheth, company comforteth, emulation quickeneth, glory raiseth: so as in such places the force of custom is in its exaltation. Certainly the great multiplication of virtues upon human nature, resteth upon societies well ordained and disciplined. For commonwealths and good governments do nourish virtue grown, but do not much mend the seeds. But the misery is, that the most effectual means are now applied to the ends least to be desired.

## XL. Of FORTUNE.

**I**T cannot be denied but outward accidents conduce much to fortune: favour, opportunity, death of others, occasion sitting virtue. But chiefly, the mould of a man's fortune is in his own hands. *Faber quisque fortunæ suæ*; saith the poet. And the most frequent of external causes is, that the folly of one man is the fortune of another. For no man prospers so suddenly as by others errors. *Serpens nisi serpentem comederit non fit draco*. Overt and apparent virtues bring forth praise; but there be secret and hidden virtues that bring forth fortune: certain deliveries of a man's self, which have no name. The Spanish name, *desemboadura*, partly expresseth them: when there be not stonds, nor restiveness in a man's nature; but that the wheels of his mind keep way with the wheels of his fortune. For so Livy (after he had described Cato Major in these words; *in illo viro, tantum robur corporis et animi fuit, ut quocunque loco natus esset, fortunam sibi facturus videretur*;) falleth upon that, that he had *versatile ingenium*. Therefore if a man look sharply and attentively, he shall see Fortune: for though she be blind, yet she is not invisible. The way of fortune is like the milky way in the sky; which is a meeting or knot of a number of small stars, not seen asunder, but giving light together. So are there a number of little, and scarce discerned virtues, or rather faculties and customs, that make men fortunate. The Italians note some of them, such as a man would little think. When they speak of one that cannot do amiss, they will throw in into his other conditions, that he hath *Poco di matto*. And certainly there be not two more fortunate properties, than to have a little of the fool, and not too much of the honest. Therefore extreme lovers of their country, or masters, were never fortunate, neither can they be. For when a man placeth his thoughts without himself, he goeth not his own way. An hasty fortune maketh an enterprizer and remover (the French hath it better, *entrepreneur*, or *remuant*) but the exercised fortune maketh the able man. Fortune is to be honoured and respected, and it be but for her daughters, Confidence and Reputation. For those two felicity breedeth: the first within a man's self; the latter, in others towards him. All wise men, to decline the envy of their own virtues, use to ascribe them to providence and fortune; for so they may the better assume them: and besides, it is greatness in a man to be the care of the higher powers. So Caesar said to the pilot in the tempest, *Caesarem fortas, et fortunam ejus*. So Sylla chose the name of *felix*, and not of *magus*: and it hath been noted, that those that ascribe openly too much to their own



wisdom and policy, end unfortunate. It is written, that Timotheus the Athenian, after he had, in the account he gave to the state of his government, often interlaced this speech, "And in this fortune had no part;" never prospered in any thing he undertook afterwards. Certainly there be, whose fortunes are like Homer's verses, that have a slide and easiness more than the verses of other poets: as Plutarch saith of Timoleon's fortune, in respect of that of Agellaus, or Epaminondas. And that this should be, no doubt it is much in a man's self.

## XLI. Of Usury.

MANY have made witty invectives against usury. They say, That it is pity the devil should have God's part, which is the tithe. That the usurer is the greatest sabbath-breaker, because his plough goeth every Sunday. That the usurer is the drone that Virgil speaketh of:

*Ignavum fucos pecus a praesepibus arcent.*

That the usurer breaketh the first law that was made for mankind after the fall; which was, *In sudore vultus tui comedes panem tuum*; not, *In sudore vultus alieni*. That usurers should have orange-tawney bonnets, because they do judaize. That it is against nature, for money to beget money: and the like. I say this only, that usury is a *concessum propter duritiem cordis*: for since there must be borrowing and lending, and men are so hard of heart as they will not lend freely, usury must be permitted. Some others have made suspicious and cunning propositions of banks, discovery of mens estates, and other inventions. But few have spoken of usury usefully. It is good to set before us the inconveniences and commodities of usury; that the good may be either weighed out, or culled out; and warily to provide, that while we make forth to that which is better, we meet not with that which is worse.

The commodities of usury are: first, that it makes fewer merchants. For were it not for this lazy trade of usury, money would not lie still, but would in great part be employed upon merchandizing; which is the *vena porta* of wealth in a state. The second, that it makes poor merchants. For as a farmer cannot husband his ground so well, if he sit at a great rent; so the merchant cannot drive his trade so well, if he sit at great usury. The third is incident to the other two; and that is, the decay of customs of kings or states, which ebb or flow with merchandizing. The fourth, that it bringeth the treasure of a realm or state into a few hands. For the usurer being at certainties, and others at uncertainties, at the end of the game most of the money will be in the box; and ever a state flourisheth, when wealth is more equally spread. The fifth, that it beats down the price of land: for the employment of money is chiefly either merchandizing, or purchasing; and usury way-lays both. The sixth, that it doth dull and damp all industries, improvements, and new inventions, wherein money would be stirring, if it were not for this slug. The last, that it is the canker and ruin of many mens estates, which in process of time breeds a publick poverty.

On the other side, the commodities of usury are: first, that howsoever usury in some respect hindereth merchandizing, yet in some other it advanceth it; for it is certain that the greatest part of trade is driven by young merchants, upon borrowing at interest; so as if the usurer either call in, or keep back his money, there will ensue presently a great stand of trade. The second is, that were it not for this easy borrowing upon interest, mens necessities would draw upon them a most sudden undoing; in that they would be forced to sell their means (be it lands or goods) far under foot; and so whereas usury doth but gnaw upon them, bad markets would swallow them quite up. As for mortgaging, or pawning, it will little mend the matter; for either men will not take pawns without use; or if they do, they will look precisely for the forfeiture. I remember a cruel moneyed man in the country, that would say; "The devil take this usury, it keeps us from forfeitures of mortgages and bonds." The third and last is, that it is a vanity to conceive, that there would be ordinary borrowing without profit; and it is impossible to conceive the number of inconveniences that will ensue, if



if borrowing be cramped. Therefore to speak of the abolishing of usury is idle. All states have ever had it in one kind or rate, or other. So as that opinion must be sent to Utopia.

To speak now of the reformation and reglement of usury: how the discommodities of it may be best avoided, and the commodities retained: it appears by the balance of commodities and discommodities of usury, two things are to be reconciled. The one, that the tooth of usury be grinded that it bite not too much: the other, that there be left open a means to invite moneyed men to lend to the merchants, for the continuing and quickning of trade. This cannot be done, except you introduce two several sorts of usury, a less and a greater. For if you reduce usury to one low rate, it will ease the common borrower, but the merchant will be to seek for money. And it is to be noted, that the trade of merchandize being the most lucrative, may bear usury at a good rate; other contrails not so.

To serve both intentions, the way would be briefly thus. That there be two rates of usury; the one free and general for all; the other under licence only to certain persons, and in certain places of merchandizing. First therefore let usury in general be reduced to five in the hundred; and let that rate be proclaimed to be free and current; and let the state shut itself out to take any penalty for the same. This will preserve borrowing from any general stop or dryness. This will ease infinite borrowers in the country. This will in good part raise the price of land, because land purchased at sixteen years purchase, will yield six in the hundred and somewhat more, whereas this rate of interest yields but five. This by like reason will encourage and edge industrious and profitable improvements; because many will rather venture in that kind, than take five in the hundred, especially having been used to greater profit. Secondly, let there be certain persons licensed to lend to known merchants, upon usury at a higher rate: and let it be with the cautions following. Let the rate be, even with the merchant himself, somewhat more easy than that he used formerly to pay: for by that means all borrowers shall have some ease by this reformation, be he merchant or whosoever. Let it be no bank, or common stock, but every man be master of his own money. Not that I altogether dislike banks, but they will hardly be brooked in regard of certain suspicions. Let the state be answered some small matter for the licence, and the rest left to the lender: for if the abatement be but small, it will no whit discourage the lender. For he, for example, that took before ten or nine in the hundred, will sooner descend to eight in the hundred, than give over his trade of usury; and go from certain gains, to gains of hazard. Let these licensed lenders be in number indefinite, but restrained to certain principal cities and towns of merchandizing: for then they will be hardly able to colour other mens moneys in the country; so as the licence of nine, will not suck away the current rate of five: for no man will lend his moneys far off, nor put them into unknown hands.

If it be objected, that this doth in a sort authorize usury, which before was in some places but permissive: the answer is, that it is better to mitigate usury by declaration, than to suffer it to rage by connivance.

## XLII. Of YOUTH and AGE.

A Man that is young in years, may be old in hours, if he have lost no time. But that happeneth rarely. Generally youth is like the first cogitations, not so wise as the second. For there is a youth in thoughts, as well as in ages. And yet the invention of young men is more lively than that of old; and imaginations stream into their minds better, and as it were more divinely. Natures that have much heat, and great and violent desires and perturbations, are not ripe for action, till they have passed the meridian of their years: as it was with Julius Cæsar, and Septimius Severus. Of the latter of whom it is said, *Juventutem egit erroribus, ino furoribus, plenam*. And yet he was the ablest emperor, almost, of all the first. But repoled natures may do well in youth: as it is seen in Augustus Cæsar, Cosmus duke of Florence, Gaston de Foix, and others. On the other side, heat and



and vivacity in age, is an excellent composition for business. Young men are fitter to invent than to judge; fitter for execution than for counsel; and fitter for new projects, than for settled business. For the experience of age, in things that fall within the compass of it, directeth them; but in new things abuseth them. The errors of young men are the ruin of business; but the errors of aged men amount but to this; that more might have been done, or sooner. Young men, in the conduct and manage of actions, embrace more than they can hold; stir more than they can quiet; fly to the end, without consideration of the means and degrees; pursue some few principles which they have chanced upon, absurdly; care not to innovate, which draws unknown inconveniences; use extreme remedies at first; and, that which doubleth all errors, will not acknowledge or retract them; like an unready horse, that will neither stop nor turn. Men of age object too much, consult too long, adventure too little, repent too soon, and seldom drive business home to the full period; but content themselves with a mediocrity of success. Certainly it is good to compound employments of both; for that will be good for the present, because the virtues of either age may correct the defects of both: and good for succession, that young men may be learners, while men in age are actors: and lastly, good for extern accidents, because authority followeth old men, and favour and popularity youth. But for the moral part, perhaps youth will have the preheminance, as age hath for the politick. A certain Rabbín upon the text, *Your young men shall see visions, and your old men shall dream dreams*; inferreth, That young men are admitted nearer to God than old; because vision is a clearer revelation than a dream. And certainly, the more a man drinketh of the world, the more it intoxicateth; and age doth profit rather in the powers of understanding, than in the virtues of the will and affections. There be some have an over-early ripeness in their years, which fadeth betimes: these are first, such as have brittle wits, the edge whereof is soon turned; such as was Hermogenes the rhetorician, whose books are exceeding subtle; who afterwards waxed stupid. A second sort is of those that have some natural dispositions which have better grace in youth than in age: such as is a fluent and luxuriant speech; which becomes youth well, but not age. So Tully saith of Hortensius; *idem manebat, neque idem decebat*. The third is of such as take too high a strain at the first; and are magnanimous, more than tract of years can uphold. As was Scipio Africanus, of whom Livy saith in effect; *ultima primis cedebant*.

### XLIII. Of Beauty.

VIRTUE is like a rich stone, best plain set: and surely virtue is best in a body that is comely, though not of delicate features; and that hath rather dignity of presence, than beauty of aspect. Neither is it almost seen, that very beautiful persons are otherwise of great virtue. As if nature were rather busy not to err, than in labour to produce excellency. And therefore they prove accomplished, but not of great spirit; and study rather behaviour than virtue. But this holds not always; for Augustus Cæsar, Titus Vespasianus, Philip le Belle of France, Edward the fourth of England, Alcibiades of Athens, Ismael the sophy of Persia, were all high and great spirits; and yet the most beautiful men of their times. In beauty, that of favour is more than that of colour; and that of decent and gracious motion more than that of favour. That is the best part of beauty, which a picture cannot express; no nor the first sight of the life. There is no excellent beauty, that hath not some strangeness in the proportion. A man cannot tell, whether Apelles, or Albert Durer, were the more triser; whereof the one would make a personage by geometrical proportions: the other, by taking the best parts out of divers faces, to make one excellent. Such personages, I think, would please no body but the painter that made them. Not but I think a painter may make a better face than ever was; but he must do it by a kind of felicity (as a musician that maketh an excellent air in musick) and not by rule. A man shall see faces, that if you examine them part by part, you shall never find a good; and yet altogether do well. If it be true, that the



the principal part of beauty is in decent motion, certainly it is no marvel, though persons in years seem many times more amiable; *pulchrum autumnus pulcher*: for no youth can be comely but by pardon, and considering the youth, as to make up the comeliness. Beauty is as summer-fruits, which are easy to corrupt, and cannot last: and for the most part it makes a dissolute youth, and an age a little out of countenance: but yet certainly again, if it light well, it maketh virtues shine, and vices blush.

#### XLIV. Of Deformity.

DEFORMED persons are commonly even with nature; for as nature hath done ill by them, so do they by nature; being for the most part (as the Scripture saith) *void of natural affection*: and so they have their revenge of nature. Certainly there is a consent between the body and the mind, and where nature erreth in the one, she ventureth in the other. *Vbi peccat in uno, periclitatur in altero*. But because there is in man an election touching the frame of his mind, and a necessity in the frame of his body, the stars of natural inclination are sometimes obscured by the sun of discipline and virtue: therefore it is good to consider of deformity, not as a sign which is more deceivable, but as a cause which seldom faileth of the effect. Whosoever hath any thing fixed in his person that doth induce contempt, hath also a perpetual spur in himself, to rescue and deliver himself from scorn; therefore all deformed persons are extreme bold. First, as in their own defence, as being exposed to scorn; but in process of time by a general habit. Also it stirreth in them industry, and especially of this kind, to watch and observe the weakness of others, that they may have somewhat to repay. Again, in their superiors it quenbeth jealousy towards them, as persons that they think they may at pleasure despise: and it layeth their competitors and emulators asleep; as never believing they should be in possibility of advancement, till they see them in possession. So that, upon the matter, in a great wit deformity is an advantage to rising. Kings in ancient times (and at this present, in some countries) were wont to put great trust in eunuchs, because they that are envious towards all, are more obnoxious and officious towards one. But yet their trust towards them hath rather been as to good spies, and good whisperers, than good magistrates and officers. And much like is the reason of deformed persons. Still the ground is, they will, if they be of spirit, seek to free themselves from scorn; which must be either by virtue or malice. And therefore let it not be marvelled, if sometimes they prove excellent persons; as was Agellaus, Zanger the son of Solyman, Æsop, Calca president of Peru; and Socrates may go likewise amongst them, with others.

#### XLV. Of Building.

HOUSES are built to live in, and not to look on; therefore let use be preferred before uniformity, except where both may be had. Leave the goodly fabricks of houses for beauty only, to the enchanted palaces of the poets: who build them with small cost. He that builds a fair house upon an ill seat, com-mitteth himself to prison. Neither do I reckon it an ill seat only, where the air is unwholesome, but likewise where the air is unequal; as you shall see many fine seats, set upon a knap of ground, environed with higher hills round about it, whereby the heat of the sun is pent in, and the wind gathereth as in troughs; so as you shall have, and that suddenly, as great diversity of heat and cold, as if you dwelt in several places. Neither is it ill air only that maketh an ill seat; but ill ways, ill markets; and, if you will consult with Momus, ill neighbours. I speak not of many more; want of water, want of wood, shade, and shelter; want of fruitfulness, and mixture of grounds of several natures; want of prospect; want of level grounds; want of places at some near distance for sports of hunting, hawking, and races; too near the sea, too remote; having the commodity of navigable rivers, or the discomfort of their overflowing; too far off from great cities, which may hinder business; or too near them, which lurcheth all



all provisions, and maketh every thing dear; where a man hath a great living laid together, and where he is scant: all which, as it is impossible perhaps to find together, so it is good to know them, and think of them, that a man may take as many as he can; and if he have several dwellings, that he sort them so, that what he wanteth in the one, he may find in the other. Lucullus answered Pompey well, who, when he saw his stately galleries and rooms, so large and highsome in one of his houses, said, "Surely an excellent place for summer, but how do you do in winter?" Lucullus answered, "Why, do you not think me as wise as some fowls are, that ever change their abode towards the winter?"

To pass from the seat to the house itself, we will do as Cicero doth in the orator's art, who writes books *De oratore*, and a book he entitles *Orator*: whereof the former delivers the precepts of the art, and the latter the perfection. We will therefore describe a princely palace, making a brief model thereof. We is strange to see, now in Europe, such huge buildings as the Vatican, and Escorial, and some others be, and yet scarce a very fair room in them.

First therefore, I say, you cannot have a perfect palace, except you have two several sides; a side for the banquet, as is spoken of in the book of Esther; and a side for the household: the one for feasts and triumphs, and the other for dwelling. I understand both these sides to be not only returns, but parts of the front; and to be uniform without, though severally partitioned within; and to be on both sides of a great and stately tower, in the midst of the front; that, as it were, joineth them together on either hand. I would have on the side of the banquet, in front, one only goodly room above stairs, of some forty foot high; and under it, a room for a dressing or preparing place, at times of triumphs. On the other side, which is the household side, I wish it divided at the first into a hall and a chapel (with a partition between) both of good state and bigness; and those not to go all the length, but to have at the farther end a winter and a summer parlour, both fair: and under these rooms a fair and large cellar sunk underground; and likewise some privy kitchens, with butteries and pantries, and the like. As for the tower, I would have it two stories, of eighteen foot high a-piece, above the two wings; and a goodly leads upon the top, railed, with statues interposed; and the same tower to be divided into rooms, as shall be thought fit. The stairs likewise to the upper rooms, let them be upon a fair open newel, and finely railed in, with images of wood, cast into a brass colour; and a very fair landing place at the top. But this to be, if you do not point any of the lower rooms for a dining-place of servants; for otherwise you shall have the servants dinner after your own: for the steam of it will come up as in a tunnel. And so much for the front. Only I understand the height of the first stairs to be sixteen foot, which is the height of the lower room.

Beyond this front is there to be a fair court, but three sides of it of a far lower building than the front. And in all the four corners of that court fair stair-cases cast into turrets on the outside, and not within the row of buildings themselves: but those towers are not to be of the height of the front, but rather proportionable to the lower building. Let the court not be paved, for that striketh up a great heat in summer, and much cold in winter: but only some side alleys, with a cross, and the quarters to graze, being kept shorn, but not too near in which galleries let there be three, or five, fine cupola's, in the length of it, placed at equal distance; and fine coloured windows of several works. On the household side, chambers of presence, and ordinary entertainments, with some bed-chambers; and let all three sides be a double house, without thorow lights on the sides, that you may have rooms from the sun, both for forenoon and afternoon. Cast it also, that you may have rooms both for summer and winter; so full of glass, that one cannot tell where to become to be out of the sun, or shady for summer, and warm for winter. You shall have sometimes fair houses cold. For imbowed windows, I hold them of good use (in cities indeed, upright do better, in respect of the uniformity towards the street) for they be pretty retiring places for conference; and besides, they keep both the wind and sun off; for that which would strike almost through the room, doth scarce pass the window. But let them be but few, four in the court, on the sides only.



Beyond this court, let there be an inward court of the same square and height, which is to be invironed with the garden on all sides: and in the inside, cloistered on all sides, upon decent and beautiful arches, as high as the first story: on the under story, towards the garden, let it be turned to a grotto, or place of shade or estivation: and only have opening and windows towards the garden, and be level upon the floor, no whit sunk under ground, to avoid all dampishness. And let there be a fountain, or some fair work of statues, in the midst of this court; and to be paved as the other court was. These buildings to be for privy lodgings on both sides, and the end for privy galleries: whereof you must foresee, that one of them be for an infirmary, if the prince or any special person should be sick, with chambers, bed-chamber, *antechamber* and *reclamera*, joining to it. This upon the second story. Upon the ground-story, a fair gallery, open, upon pillars; and upon the third story likewise, an open gallery upon pillars, to take the prospect and freshness of the garden. At both corners of the farther side, by way of return, let there be two delicate or rich cabinets, daintily paved, richly hanged, glazed with crystalline glass, and a rich cupola in the midst; and all other elegance that may be thought upon. In the upper gallery too, I wish that there may be, if the place will yield it, some fountains running in divers places from the wall, with some fine avoidances. And thus much for the model of the palace; save that you must have, before you come to the front, three courts: a green court plain, with a wall about it: a second court of the same, but more garnished, with little turrets, or rather embellishments upon the wall; and a third court, to make a square with the front, but not to be built, nor yet enclosed with a naked wall, but enclosed with terrasses leaded aloft, and fairly garnished on the three sides; and cloistered on the inside with pillars, and not with arches below. As for offices, let them stand at distance, with some low galleries to pass from them to the palace itself.

#### XLVI. OF GARDENS.

GOD almighty first planted a garden: and indeed it is the purest of human pleasures. It is the greatest refreshment to the spirits of man; without which, buildings and palaces are but gross handy-works: and a man shall ever see, that when ages grow to civility and elegance, men come to build stately, sooner than to garden finely; as if gardening were the greater perfection. I do hold it, in the royal ordering of gardens, there ought to be gardens for all the months in the year: in which, severally, things of beauty may be then in season. For December and January, and the latter part of November, you must take such things as are green all winter; holly; ivy; bays; juniper; cypress-trees; yew; pine-apple trees; fir-trees; rosemary; lavender; periwinkle, the white, the purple, and the blue; germander; flags; orange-trees; lemon-trees, and myrtles, if they be shewed; and sweet majoram warm set. There followeth, for the latter part of January and February, the *mezerion* tree, which then blossoms; *crocus vernus*, both the yellow and the grey; primroses; anemones; the early tulip; *hyacinthus orientalis*; *ebanairis*; *fritellaria*. For March there come violets, especially the single blue, which are the earliest; the yellow daffadil; the daisy; the almond-tree in blossom; the peach-tree in blossom; the cornelian-tree in blossom; sweet-briar. In April follow the double white violet; the wall-flower; the stock-gillflower; the cowslip, flower-de-luces, and lillies of all natures; rosemary-flowers; the tulip; the double piony; the pale daffadil; the French honeysuckle; the cherry-tree in blossom; the damascene and plum-trees in blossom; the white thorn in leaf; the lelach-tree. In May and June come pinks of all sorts; especially the bluish-pink, roses of all kinds, except the musk, which comes later: honeysuckles; strawberries; bugloss; columbine; the French maygold; *flor Africanus*; cherry-tree in fruit; ribes; figs in fruit; rasps; vine flowers; lavender in flowers; the sweet satyrian, with the white flower; *herba muscaria*; *lilium convallium*; the apple-tree in blossom. In July come gilliflowers of all varieties; musk-roses; the lime-tree in blossom; early pears, and plums in fruit, gennings, codlins. In August come plums of all sorts in fruit; pears; apricots;



## ESSAYS CIVIL AND MORAL.

apricots; barberries; filberds; muskmelons; monks-hoods, of all colours. In September come grapes; apples; poppies of all colours; peaches; *melo-cotons*; nectarines; cornellans; wardens; quinces. In October, and the beginning of November, come services; medlars; bullaces; roses cut or removed to come late; hollyoaks, and such like. These particulars are for the climate of London: but my meaning is perceived, that you may have *ver perpetuum*, as the place affords.

And because the breath of flowers is far sweeter in the air (where it comes and goes, like the warbling of musick) than in the hand, therefore nothing is more fit for that delight, than to know what be the flowers and plants that do best perfume the air. Roses damask and red, are fast flowers of their smells; so that you may walk by a whole row of them, and find nothing of their sweetness; yea, though it be in a morning's dew. Bays likewise yield no smell, as they grow; rosemary little; nor sweet majoram. That which above all others yields the sweetest smell in the air, is the violet; especially the white double violet, which comes twice a year; about the middle of April, and about Bartholomew-tide. Next to that is the musk-rose: then the strawberry-leaves dying, with a most excellent cordial smell: then the flower of the vines; it is a little dust, like the dust of a bent, which grows upon the cluster, in the first coming forth: then sweet-briar: then wall-flowers, which are very delightful, to be set under a parlour, or lower chamber window: then pinks and gill-flowers, especially the matted pink, and clove-gillflower: then the flowers of the lime-tree: then the honey-suckles, so they be somewhat afar off. Of bean-flowers I speak not, because they are field flowers: but those which perfume the air most delightfully, not passed by as the rest, but being trodden upon and crushed, are three: that is, burnet, wild thyme, and water mints. Therefore you are to set whole alleys of them, to have the pleasure when you walk or tread.

For gardens (speaking of those which are indeed prince-like, as we have done of buildings) the contents ought not well to be under thirty acres of ground, and to be divided into three parts: a green in the entrance; a heath or desert in the going forth; and the main garden in the midst; besides alleys on both sides. And I like well, that four acres of ground be assigned to the green, six to the heath, four and four to either side, and twelve to the main garden. The green hath two pleasures; the one, because nothing is more pleasant to the eye, than green grass kept finely shorn; the other, because it will give you a fair alley in the midst; by which you may go in front upon a stately hedge, which is to inclose the garden. But because the alley will be long, and in great heat of the year or day, you ought not to buy the shade in the garden by going in the sun through the green; therefore you are, of either side the green, to plant a covert alley, upon carpenters work, about twelve foot in height, by which you may go in shade into the garden. As for the making of knots or figures, with divers coloured earths, that they may lie under the windows of the house, on that side which the garden stands, they be but toys; you may see as good sights, many times, in tarts. The garden is best to be square, encompassed on all the four sides with a stately arched hedge: the arches to be upon pillars of carpenters work, of some ten foot high, and six foot broad; and the spaces between, of the same dimension with the breadth of the arch. Over the arches, let there be an entire hedge, of some four foot high, framed also upon carpenters work; and upon the upper hedge, over every arch, a little turret, with a belly enough to receive a cage of birds: and over every space, between the arches, some other little figure, with broad plates of round coloured glass, gilt, for the sun to play upon. But this hedge I intend to be raised upon a bank, not steep, but gently slope, of some six foot, set all with flowers. Also I understand, that this square of the garden should not be the whole breadth of the ground, but to leave on either side ground enough for diversity of side alleys; unto which the two covert alleys of the green may deliver you: but there must be no alleys with hedges at either end of this great enclosure; not at the higher end, for letting your prospect upon this fair hedge from the green; nor at the farther end, for letting your prospect from the hedge, through the arches, upon the heath.



For the ordering of the ground within the great hedge, I leave it to variety of device; advising nevertheless, that whatsoever form you cast it into, first it be not too busy, or full of work: wherein I, for my part, do not like images cut out in juniper or other garden stuff; they be for children. Little low hedges round, like welts, with some pretty pyramids, I like well; and in some places, fair columns upon frames of carpenter's work. I would also have the alleys spacious and fair. You may have closer alleys upon the side grounds, but none in the main garden. I wish also, in the very middle, a fair mount, with three ascents and alleys, enough for four to walk a-breast; which I would have to be perfect circles, without any bulwarks or embosments; and the whole mount to be thirty foot high; and some fine banquetting house, with some chimneys neatly cast, and without too much glafs.

For fountains, they are a great beauty and refreshment; but pools marr all, and make the garden unwholesome, and full of flies and frogs. Fountains I intend to be of two natures: the one that sprinkleth or spouteth water; the other a fair receipt of water, of some thirty or forty foot square, but without fish, or slime, or mud. For the first, the ornaments of images gilt, or of marble, which are in use, do well: but the main matter is so to convey the water, as it never stay either in the bowls, or in the cistern; that the water be never by rest discoloured, green or red, or the like; or gather any mossiness or putrefaction. Besides that, it is to be cleaned every day by the hand. Also some steps up to it, and some fine pavement about it doth well. As for the other kind of fountain, which we may call a bathing pool, it may admit much curiosity and beauty, wherewith we will not trouble ourselves; as, that the bottom be finely paved, and with images; the sides likewise; and withal embellished with coloured glafs, and such things of lustre; encompassed also with fine rails of low statues. But the main point is the same which we mentioned in the former kind of fountain; which is, that the water be in perpetual motion, fed by a water higher than the pool, and delivered into it by fair spouts, and then discharged away under ground by some equality of bores, that it stay little. And for fine devices of arching water without spilling, and making it rise in several forms (of feathers, drinking-glasses, canopies, and the like) they be pretty things to look on, but nothing to health and sweetness.

For the heath, which was the third part of our plot, I wish it to be framed as much as may be to a natural wildness. Trees I would have none in it, but some thickets made only of sweet-briar and honey-suckle, and some wild vine amongst; and the ground set with violets, straw-berries, and primroses. For these are sweet and prosper in the shade. And these to be in the heath here and there, not in any order. I like also little heaps, in the nature of mole-hills (such as are in wild heaths) to be set, some with wild thyme, some with pinks, some with germander, that gives a good flower to the eye, some with periwinkle, some with violets, some with straw-berries, some with cowslips, some with daisies, some with red roses, some with *lilium convallium*, some with sweet-williams red, some with bears-foot, and the like low flowers, being withal sweet and lightly. Part of which heaps to be with standards of little bushes, prickt upon their top, and part without. The standards to be roses, juniper, holly, berries (but here and there, because of the smell of their blossom) red currans, gooseberries, rosemary, bays, sweet-briar, and such like. But these standards to be kept with cutting, that they grow not out of course.

For the side grounds, you are to fill them with variety of alleys, private, to give a full shade, some of them, wheresoever the sun be. You are to frame some of them likewise for shelter, that when the wind blows sharp, you may walk as in a gallery. And those alleys must be likewise hedged at both ends, to keep out the wind; and these closer alleys must be ever finely gravelled, and no grass, because of going wet. In many of these alleys likewise, you are to set fruit-trees of all sorts; as well upon the walls as in ranges. And this would be generally observed, that the borders wherein you plant your fruit-trees, be fair and large, and low, and not steep; and set with fine flowers, but thin and sparingly, lest they deceive the trees. At the end of both the side grounds, I would have a mount



of some pretty height, leaving the wall of the inclosure breast high, to look abroad into the fields.

For the main garden, I do not deny but there should be some fair alleys, ranged on both sides, with fruit trees, and some pretty tufts of fruit-trees, and arbours with seats, set in some decent order; but these to be by no means set too thick, but to leave the main garden so as it be not close, but the air open and free. For as for shade, I would have you rest upon the alleys of the side grounds, there to walk, if you be disposed, in the heat of the year or day; but to make account, that the main garden is for the more temperate parts of the year; and in the heat of summer, for the morning and the evening, or overcast days.

For aviaries, I like them not, except they be of that largeness, as they may be turfed, and have living plants and bushes set in them; that the birds may have more scope, and natural nestling, and that no foulness appear in the floor of the aviary.

So I have made a platform of a princely garden, partly by precept, partly by drawing; not a model, but some general lines of it; and in this I have spared for no cost. But it is nothing for great princes, that for the most part, taking advice with workmen, with no less cost set their things together; and sometimes add statues, and such things, for state and magnificence, but nothing to the true pleasure of a garden.

## XLVII. Of NEGOTIATING.

**I**T is generally better to deal by speech, than by letter; and by the mediation of a third, than by a man's self. Letters are good, when a man would draw an answer by letter back again; or when it may serve for a man's justification, afterwards to produce his own letter; or where it may be danger to be interrupted, or heard by pieces. To deal in person is good, when a man's face breedeth regard, as commonly with inferiors; or in tender cases, where a man's eye upon the countenance of him with whom he speaketh, may give him a direction how far to go: and generally where a man will reserve to himself liberty, either to disavow, or to expound. In choice of instruments, it is better to chuse men of a plainer sort, that are like to do that that is committed to them, and to report back again faithfully the success; than those that are cunning to contrive out of other mens business somewhat to grace themselves, and will help the matter in report, for satisfaction sake. Use also such persons as affect the business wherein they are employed, for that quickeneth much; and such as are fit for the matter; as bold men for expostulation, fair-spoken men for persuasion, crafty men for inquiry and observation, forward and absurd men for business that doth not well bear out itself. Use also such as have been lucky, and prevailed before in things wherein you have employed them; for that breeds confidence, and they will strive to maintain their prescription. It is better to sound a person with whom one deals, afar off, than to fall upon the point at first; except you mean to surprize him by some short question. It is better dealing with men in appetite, than with those that are where they would be. If a man deal with another upon conditions, the start or first performance is all; which a man cannot reasonably demand, except either the nature of the thing be such which must go before; or else a man can persuade the other party, that he shall still need him in some other thing; or else that he be counted the honestest man. All practice is to discover, or to work. Men discover themselves in trust, in passion, at unawares, and of necessity, when they would have somewhat done, and cannot find an apt pretext. If you would work any man, you must either know his nature and fashions, and so lead him; or his ends, and so persuade him; or his weakness and disadvantages, and so awe him; or those that have interest in him, and so govern him. In dealing with cunning persons, we must ever consider their ends to interpret their speeches; and it is good to say little to them, and that which they least look for. In all negotiations of difficulty, a man may not look to sow and reap at once; but must prepare business, and so ripen it by degrees.



XLVIII. *Of Followers and Friends.*

COSTLY followers are not to be liked; lest while a man maketh his train longer, he make his wings shorter. I reckon to be costly, not them alone which charge the purse, but which are wearisom and importune in suits. Ordinary followers ought to challenge no higher conditions than countenance, recommendation, and protection from wrongs. Faction followers are worse to be liked, which follow not upon affection to him with whom they range themselves, but upon discontentment conceived against some other: whereupon commonly ensueth that ill intelligence that we many times see between great persons. Likewise glorious followers, who make themselves as trumpets of the commendation of those they follow, are full of inconvenience; for they taint business through want of secrecy; and they export honour from a man, and make him a return in envy. There is a kind of followers likewise, which are dangerous, being indeed espials; which enquire the secrets of the house, and bear tales of them to others. Yet such men many times are in great favour; for they are officious, and commonly exchange tales. The following by certain estates of men answerable to that which a great person himself professeth (as of soldiers to him that hath been employed in the wars, and the like) hath ever been a thing civil, and well taken even in monarchies; so it be without too much pomp or popularity. But the most honourable kind of following, is to be followed as one that apprehendeth to advance virtue and desert in all sorts of persons. And yet where there is no eminent odds in sufficiency, it is better to take with the more passable, than with the more able. And besides, to speak truth, in base times active men are of more use than virtuous. It is true, that in government, it is good to use men of one rank equally: for to countenance some extraordinarily, is to make them insolent, and the rest discontent; because they may claim a due. But contrariwise in favour, to use men with much difference and election is good; for it maketh the persons preferred more thankful, and the rest more officious; because all is of favour. It is good discretion not to make too much of any man at the first; because one cannot hold out that proportion. To be governed (as we call it) by one, is not safe; for it shews softness, and gives a freedom to scandal and disreputation; for those that would not censure, or speak ill of a man immediately, will talk more boldly of those that are so great with them, and thereby wound their honour. Yet to be distracted with many, is worse; for it makes men to be of the last impression, and full of change. To take advice of some few friends is ever honourable; for lookers on many times see more than gamesters; and the vale best discovereth the hill. There is little friendship in the world, and least of all between equals, which was wont to be magnified. That that is, is between superiour and inferiour, whose fortunes may comprehend the one the other.

XLIX. *Of Sutors.*

MANY ill matters and projects are undertaken; and private suits do putrefy the publick good. Many good matters are undertaken with bad minds; I mean not only corrupt minds, but crafty minds, that intend not performance. Some embrace suits, which never mean to deal effectually in them; but if they see there may be life in the matter by some other mean, they will be content to win a thank, or take a second reward, or at least to make use in the mean time of the suitor's hopes. Some take hold of suits, only for an occasion to cross some other, or to make an information, whereof they could not otherwise have apt pretext; without care what become of the suit when that turn is served: or generally, to make other mens business a kind of entertainment to bring in their own. Nay, some undertake suits, with a full purpose to let them fall; to the end to gratify the adverse party or competitor. Surely there is in some sort a right in every suit; either a right of equity, if it be a suit of controversy; or a right of desert, if it be a suit of petition. If affection lead a man to favour the wrong

side



side in justice, let him rather use his countenance to compound the matter, than to carry it. If affection lead a man to favour the less worthy in desert, let him do it without depraving or disabling the better deserver. In suits which a man doth not well understand, it is good to refer them to some friend of trust and judgment, that may report whether he may deal in them with honour; but let him chuse well his referendaries, for else he may be led by the nose. Suitors are so distastèd with delays and abuses, that plain dealing in denying to deal in suits at first, and reporting the success barely, and in challenging no more thanks than one hath deserved, is grown not only honourable, but also gracious. In suits of favour, the first coming ought to take little place; so far forth consideration may be had of his trust, that, if intelligence of the matter could not otherwise have been had but by him, advantage be not taken of the note, but the party left to his other means, and in some sort recompensèd for his discovery. To be ignorant of the value of a suit, is simplicity; as well as to be ignorant of the right thereof, is want of conscience. Secrecy in suits is a great mean of obtaining; for voicing them to be in forwardness, may discourage some kind of suitors; but doth quicken and awake others. But timing of the suit is the principal: timing, I say, not only in respect of the person that should grant it, but in respect of those which are like to cross it. Let a man, in the choice of his mean, rather chuse the fittest mean, than the greatest mean: and rather them that deal in certain things, than those that are general. The reparation of a denial is sometimes equal to the first grant; if a man shew himself neither dejected nor discontented. *Iniquum petas, ut æquum feras*; is a good rule, where a man hath strength of favour: but otherwise a man were better rise in his suit; for he that would have ventured at first to have lost the suitor, will not in the conclusion lose both the suitor and his own former favour. Nothing is thought so easy a request to a great person, as his letter; and yet, if it be not in a good cause, it is so much out of his reputation. There are no worse instruments than these general contrivers of suits; for they are but a kind of poison and infection to publick proceedings.

### L. OF STUDIES.

**S**TUDIES serve for delight, for ornament, and for ability. Their chief use for delight, is in privateness and retiring; for ornament, is in discourse; and for ability, is in the judgment and disposition of business. For expert men can execute, and perhaps judge of particulars, one by one; but the general counsels, and the plots and marshalling of affairs, come best from those that are learned. To spend too much time in studies, is sloth; to use them too much for ornament, is affectation; to make judgment wholly by their rules, is the humour of a scholar. They perfect nature, and are perfected by experience: for natural abilities are like natural plants, that need pruning by study; and studies themselves do give forth directions too much at large, except they be bounded in by experience. Crafty men contemn studies; simple men admire them; and wise men use them: for they teach not their own use; but that is a wisdom without them, and above them, won by observation. Read not to contradict and confute; nor to believe and take for granted; nor to find talk and discourse; but to weigh and consider. Some books are to be tasted, others to be swallowed, and some few to be chewed and digested: that is, some books are to be read only in parts; others to be read, but not curiously; and some few to be read wholly, and with diligence and attention. Some books also may be read by deputy, and extracts made of them by others; but that would be only in the less important arguments, and the meaner sort of books: else distilled books are like common distilled waters, flatthy things. Reading maketh a full man; conference a ready man; and writing an exact man. And therefore if a man write little, he had need have a great memory; if he confer little, he had need have a present wit; and if he read little, he had need have much cunning, to seem to know that he doth not. Histories make men wise; poets, witty; the mathematicks, subtile; natural philosophy, deep; moral, grave; logick and rhetoric, able to contend:



*Absent studia in mores.* Nay, there is no stond or impediment in the wit, but may be wrought out by fit studies; like as diseases of the body may have appropriate exercises: bowling is good for the stone and reins; shooting for the lungs and breast; gentle walking for the stomach; riding for the head; and the like. So if a man's wit be wandering, let him study the mathematicks; for in demonstrations, if his wit be called away never so little, he must begin again: if his wit be not apt to distinguish or find differences, let him study the schoolmen; for they are *cynini sēctores*: if he be not apt to beat over matters, and to call up one thing to prove and illustrate another, let him study the lawyers cases: so every defect of the mind may have a special receipt.

## LI. Of FACTION.

MANY have an opinion not wise; that for a prince to govern his estate, or for a great person to govern his proceedings, according to the respect of factions, is a principal part of policy; whereas, contrariwise, the chiefest wisdom is, either in ordering those things which are general, and wherein men of several factions do nevertheless agree, or in dealing with correspondence to particular persons, one by one. But I say not, that the consideration of factions is to be neglected. Mean men, in their rising, must adhere; but great men, that have strength in themselves, were better to maintain themselves indifferent and neutral. Yet even in beginners, to adhere so moderately, as he be a man of the one faction, which is most passable with the other, commonly giveth best way. The lower and weaker faction is the firmer in conjunction: and it is often seen, that a few that are stiff, do tire out a greater number that are more moderate. When one of the factions is extinguished, the remaining subdivideth: as the faction between Lucullus, and the rest of the nobles of the senate (which they called *optimates*) held out a while against the faction of Pompey and Caesar: but when the senate's authority was pulled down, Caesar and Pompey soon after brake. The faction or party of Antonius and Octavianus Caesar, against Brutus and Cassius, held out likewise for a time: but when Brutus and Cassius were overthrown, then soon after Antonius and Octavianus brake and subdivided. These examples are of wars, but the same holdeth in private factions. And therefore those that are seconds in factions, do many times, when the faction subdivideth, prove, principals: but many times also they prove cyphers and casheered; for many a man's strength is in opposition; and when that faileth he groweth out of use. It is commonly seen, that men once placed, take in with the contrary faction to that by which they enter; thinking belike that they have the first sure, and now are ready for a new purchase. The traitor in faction lightly goeth away with it; for when matters have stuck long in balancing, the winning of some one man caseth them, and he getteth all the thanks. The even carriage between two factions, proceedeth not always of moderation, but of a truens to a man's self, with end to make use of both. Certainly in Italy they hold it a little suspect in popes, when they have often in their mouth *Padre commune*: and take it to be a sign of one that meaneth to refer all to the greatness of his own house. Kings had need beware how they side themselves, and make themselves as of a faction or party; for leagues within the state are ever pernicious to monarchies; for they raise an obligation paramount to obligation of sovereignty, and make the king *tantum unus ex nobis*; as was to be seen in the league of France. When factions are carried too high, and too violently, it is a sign of weakness in princes, and much to the prejudice both of their authority and business. The motions of factions under kings ought to be like the motions (as the astronomers speak) of the inferior orbs; which may have their proper motions, but yet still are quietly carried by the higher motion of *primum mobile*.

## LII. Of CEREMONIES and RESPECTS.

HE that is only real, had need have exceeding great parts of virtue: as the stone had need to be rich, that is set without foil: but if a man mark it



well, it is in praise and commendation of men, as it is in gettings and gains. For the proverb is true, that light gains make heavy purses; for light gains come thick, whereas great come but now and then. So it is true, that small matters win great commendation, because they are continually in use, and in note; whereas the occasion of any great virtue cometh but on festivals: therefore it doth much add to a man's reputation, and is (as queen Isabella said) like perpetual letters commendatory, to have good forms. To attain them, it almost sufficeth not to despise them: for so shall a man observe them in others; and let him trust himself with the rest. For if he labour too much to express them, he shall lose their grace; which is to be natural and unaffected. Some mens behaviour is like a verse, wherein every syllable is measured: how can a man comprehend great matters, that breaketh his mind too much to small observations? Not to use ceremonies at all, is to teach others not to use them again, and so diminisheth respect to himself; especially they be not to be omitted to strangers, and formal natures: but the dwelling upon them, and exalting them above the moon, is not only tedious, but doth diminish the faith and credit of him that speaks. And certainly there is a kind of conveying of effectual and imprinting passages, amongst complements, which is of singular use, if a man can hit upon it. Amongst a man's peers, a man shall be sure of familiarity; and therefore it is good a little to keep state. Amongst a man's inferiors, one shall be sure of reverence; and therefore it is good a little to be familiar. He that is too much in any thing, so that he giveth another occasion of satiety, maketh himself cheap. To apply one's self to others is good; so it be with demonstration that a man doth it upon regard, and not upon facility. It is a good precept, generally in seconding another, yet to add somewhat of one's own; as if you will grant his opinion, let it be with some distinction; if you will follow his motion, let it be with condition; if you allow his counsel, let it be with alledging farther reason. Men had need beware how they be too perfect in complements; for be they never so sufficient otherwise, their enviers will be sure to give them that attribute, to the disadvantage of their greater virtues. It is loss also in business, to be too full of respects, or to be too curious in observing times and opportunities: Solomon saith, *He that considereth the wind, shall not sow; and he that looketh to the clouds, shall not reap.* A wise man will make more opportunities than he finds. Mens behaviour should be like their apparel; not too strait or point device, but free for exercise or motion.

### LIII. Of PRAISE.

PRAISE is the reflexion of virtue: but it is as the glads or body which giveth the reflexion. If it be from the common people, it is commonly false and nought; and rather followeth vain persons than virtuous; for the common people understand not many excellent virtues: the lowest virtues draw praise from them; the middle virtues work in them astonishment, or admiration; but of the highest virtues they have no sense or perceiving at all: but shews, and beareth up things light and swollen, and drowns things weighty and solid: but if persons of quality and judgment concur, then it is (as the Scripture saith) *Nomen bonum inftar unguenti fragrantis.* It filleth all round about, and will not easily away: for the odours of ointments are more durable than those of flowers. There be so many false points of praise, that a man may justly hold it a suspect. Some praises proceed merely of flattery; and if he be an ordinary flatterer, he will have certain common attributes, which may serve every man; if he be a cunning flatterer, he will follow the arch-flatterer, which is a man's self; and wherein a man thinketh best of himself, therein the flatterer will uphold him most: but if he be an impudent flatterer, look, wherein a man is conscious to himself that he is most defective, and is most out of countenance in himself, that will the flatterer entitle him to perforce, *spreta conscientia.* Some praises come of good wishes and respects, which is a form due in civility to kings and great persons; *laudando praeipere*; when by telling men what they are, they represent to them what they should



should be. Some men are praised maliciously to their hurt, thereby to stir envy and jealousy towards them; *pejsum genus inimicorum laudantium*; insomuch as it was a proverb amongst the Grecians, that he that was praised to his hurt, should have a push rise upon his nose: as we say, that a blister will rise upon one's tongue that tells a lye. Certainly moderate praise, used with opportunity, and not vulgar, is that which doth the good. Solomon saith, *He that praiseth his friend aloud, rising early, it shall be to him no better than a curse*. Too much magnifying of man or matter, doth irritate contradiction, and procure envy and scorn. To praise a man's self cannot be decent, except it be in rare cases: but to praise a man's office or profession, he may do it with good grace, and with a kind of magnanimity. The cardinals of Rome, which are theologues, and friers, and schoolmen, have a phrase of notable contempt and scorn, towards civil business; for they call all temporal business, of wars, embassages, judicature, and other employments, *birrerie*, which is under-sheriffries, as if they were but matters for under-sheriffs and catchpoles; tho' many times those under-sheriffries do more good than their high speculations. St. Paul, when he boasts of himself, he doth oft interlace, *I speak like a fool*; but speaking of his calling, he saith, *magnificabo apostolatum meum*.

#### LIV. OF VAIN-GLORY.

IT was prettily devised of Æsop: The fly sat upon the axle-tree of the chariot-wheel, and said, What a dust do I raise? So are there some vain persons, that whatsoever goeth alone, or moveth upon greater means, if they have never so little hand in it, they think it is they that carry it. They that are glorious, must needs be factious; for all bravery stands upon comparisons. They must needs be violent, to make good their own vaunts: neither can they be secret, and therefore not effectual; but according to the French proverb, *Beaucoup de bruit, peu de fruit*: Much bruit, little fruit. Yet certainly there is use of this quality in civil affairs: where there is an opinion, and frame to be created, either of virtue or greatness, these men are good trumpeters. Again, as Titus Livius noteth, in the case of Antiochus and the Ætolians, there are sometimes great effects of cross lyes; as if a man that negotiates between two princes, to draw them to join in a war against the third, doth extol the forces of either of them, above measure, the one to the other: and sometimes, he that deals between man and man, raiseth his own credit with both, by pretending greater interest than he hath in either. And in these and the like kinds, it often falls out, that somewhat is produced of nothing; for lyes are sufficient to breed opinion, and opinion brings on substance. In military commanders and soldiers, vain-glory is an essential point; for as iron sharpens iron, so by glory one courage sharpeneth another: in cases of great enterprize, upon charge and adventure, a composition of glorious natures doth put life into business; and those that are of solid and sober natures, have more of the ballast than of the sail. In fame of learning, the flight will be slow, without some feathers of ostentation: *Qui de commendanda gloria libros scribunt, nomen suum inscribunt*. Socrates, Aristotle, Galen, were men full of ostentation. Certainly vain-glory helpeth to perpetuate a man's memory; and virtue was never so beholden to human nature, as it received its due at the second hand. Neither had the fame of Cicero, Seneca, Plinius Secundus, born her age so well, if it had not been joined with some vanity in themselves: like unto varnish, that makes cielings not only shine, but last. But all this while, when I speak of vain-glory, I mean not of that property that Tacitus doth attribute to Mucianus; *omnium, quae dixerat, feceratque, arte quam ostentator*: for that proceeds not of vanity, but of natural magnanimity and discretion: and in some persons, is not only comely but gracious. For excursions, cessions, modestly itself well governed, are but arts of ostentation. And amongst those arts there is none better, than that which Plinius Secundus speaketh of; which is to be liberal of praise and commendation to others, in that wherein a man's self hath any perfection. For saith Pliny very wittily: "in commending another, you do yourself right; for he that you commend is either superior to you, in that you commend, or inferior. If he be inferior, if he be to be commended,



"mended, you much more. If he be superior, if he be not to be commended, "you much less." Glorious men are the scorn of wise men; the admiration of fools; the idols of parasites; and the slaves of their own vaunts.

#### LV. Of Honour and Reputation.

THE winning of honour is but the revealing of a man's virtue and worth without disadvantage. For some in their actions do woo and affect honour and reputation; which sort of men are commonly much talked of, but inwardly little admired. And some, contrariwise, darken their virtue in the shew of it; so as they be undervalued in opinion. If a man perform that which hath not been attempted before, or attempted and given over; or hath been achieved, but not with so good circumstance; he shall purchase more honour than by effecting a matter of greater difficulty, or virtue, wherein he is but a follower. If a man so temper his actions, as in some one of them he doth content every faction or combination of people, the musick will be the fuller. A man is an ill husband of his honour, that entereth into any action, the failing wherein may disgrace him more than the carrying of it through can honour him. Honour that is gained and broken upon another, hath the quickest reflexion, like diamonds cut with facets. And therefore let a man contend to excel any competitors of his in honour, in out-shooting them, if he can, in their own bow. Discreet followers and servants help much to reputation: *omnis fama a domesticis emanat*. Envy, which is the canker of honour, is best extinguished by declaring a man's self, in his ends rather to seek merit, than fame; and by attributing a man's successes rather to divine providence and felicity, than to his own virtue or policy. The true marshalling of the degrees of sovereign honour, are these. In the first place are *conditores imperiorum*; founders of states and commonwealths; such as were Romulus, Cyrus, Caesar, Ottoman, Ismael. In the second place are *legislatores*, law-givers, which are also called second founders, or *perpetui principes*, because they govern by their ordinances, after they are gone: such were Lycurgus, Solon, Justinian, Edgar, Alphonus of Castile the wise, that made the *Siete partidas*. In the third place are *liberatores*, or *salvatores*; such as compound the long miseries of civil wars, or deliver their countries from servitude of strangers or tyrants; as Augustus Caesar, Vespasianus, Aurelianus, Theodoricus, king Henry the seventh of England, king Henry the fourth of France. In the fourth place are *propagatores*, or *propugnatores imperii*, such as in honourable wars enlarge their territories, or make noble defence against invaders. And in the last place, are *pateres patriae*, which reign justly, and make the times good wherein they live. Both which last kinds need no examples, they are in such number. Degrees of honour in subjects are; first, *participes curarum*, those upon whom princes do discharge the greatest weight of their affairs; their right hands, as we call them. The next are *duces belli*, great leaders; such as are princes lieutenants, and do them notable services in the wars. The third are *gratiosi*, favourites; such as exceed not this scantling, to be solace to the sovereign, and harmless to the people: and the fourth, *negotii pares*; such as have great places under princes, and execute their places with sufficiency. There is an honour likewise, which may be ranked amongst the greatest, which happeneth rarely: that is, of such as sacrifice themselves to death or danger, for the good of their country; as was M. Regulus, and the two Decii.

#### LVI. Of Judicature.

JUDGES ought to remember, that their office is *jus dicere*, and not *jus dare*; to interpret law, and not to make law, or give law. Else will it be like the authority claimed by the church of Rome; which, under pretext of exposition of Scripture, doth not stick to add and alter; and to pronounce that which they do not find; and by shew of antiquity to introduce novelty. Judges ought to be more learned than witty; more reverend than plausible; and more advised than confident. Above all things, integrity is their portion and proper virtue.



*Cursed* (saith the law) *is he that removeth the land-mark.* The millayer of a mere-stone is to blame: but it is the unjust judge that is the capital remover of land-marks, when he desineth arms of lands and property. One foul sentence doth more hurt than many foul examples. For these do but corrupt the stream: the other corrupteth the fountain. So saith Solomon; *Fons turbatus, et vena corrupta, est sicutus cadens in causa sua coram adversario.* The office of judges may have reference unto the parties that sue; unto the advocates that plead; unto the clerks and ministers of justice underneath them; and to the sovereign or state above them.

First, for the causes or parties that sue. *There be* (saith the Scripture) *that turn judgment into wormwood; and surely there be also that turn it into vinegar: for injustice maketh it bitter, and delays make it sour.* The principal duty of a judge is to suppress force and fraud; whereof force is the more pernicious when it is open, and fraud when it is close and disguised. Add thereto contentious suits, which ought to be spewed out as the surfeit of courts. A judge ought to prepare his way to a just sentence, as God useth to prepare his way, by raising valleys, and taking down hills: so when there appeareth on either side an high hand, violent prosecution, cunning advantages, taken, combination, power, great counsel, then is the virtue of a judge seen, to make inequality equal; that he may plant his judgment as upon an even ground. *Qui fortiter emungit, elicit sanguinem;* and where the wine-press is hard wrought, it yields a harsh wine that tastes of the grape-stone. Judges must beware of hard constructions, and strained inferences; for there is no worse torture than the torture of laws: especially in case of laws penal, they ought to have care, that that which was meant for terror, be not turned into rigour; and that they bring not upon the people that shower whereof the Scripture speaketh, *pluit super eos laqueos:* for penal laws pressed, are a shower of snares upon the people. Therefore let penal laws, if they have been sleepers of long, or if they be grown unfit for the present time, be by wise judges confined in the execution; *Judicis officium est, ut res, ita tempora rerum, etc.* In causes of life and death, judges ought (as far as the law permiteth) in justice to remember mercy; and to cast a severe eye upon the example, but a merciful eye upon the person.

Secondly, for the advocates and counsel that plead: patience and gravity of hearing is an essential part of justice; and an over-speaking judge is no well-tuned cymbal. It is no grace to a judge, first to find that which he might have heard in due time from the bar; or to shew quickness of conceit in cutting off evidence or counsel too short; or to prevent information by questions, though pertinent. The parts of a judge in hearing are four: to direct the evidence; to moderate length, repetition, or impertinency of speech; to recapitulate, select, and collate, the material points of that which hath been said; and to give the rule or sentence. Whatsoever is above these, is too much; and proceedeth either of glory and willingness to speak, or of impatience to hear, or of shortness of memory, or of want of a stayed and equal attention. It is a strange thing to see, that the boldness of advocates should prevail with judges; whereas they should imitate God, in whose seat they sit; who *represseth the presumptuous,* and *giveth grace to the modest.* But it is more strange, that judges should have noted favourites; which cannot but cause multiplication of fees, and suspicion of by-ways. There is due from the judge to the advocate, some commendation and gracing where causes are well-handled, and fair pleaded; especially towards the side which obtaineth not; for that upholds in the client the reputation of his counsel, and beats down in him the conceit of his cause. There is likewise due to the publick a civil reprehension of advocates, where there appeareth cunning counsel, gross neglect, slight information, indiscreet pressing, or an over-bold defence. And let not the counsel at the bar chop with the judge, nor wind himself into the handling of the cause anew, after the judge hath declared his sentence: but on the other side, let not the judge meet the cause half way; nor give occasion to the party to say, his counsel or proofs were not heard.

Thirdly, for that that concerns clerks and ministers. The place of justice is an hallowed place; and therefore not only the bench, but the footpace, and pre-



cincts, and purrife thereof, ought to be preserved without scandal and corruption. For certainly *grapes* (as the Scripture saith) *will not be gathered of thorns or thistles*: neither can justice yield her fruit with sweetness, amongst the briars and brambles of catching and polling clerks and ministers. The attendance of courts is subject to four bad instruments. First, certain persons that are sowers of suits; which make the court swell, and the country pine. The second sort is of those that engage courts in quarrels of jurisdiction, and are not truly *amici curiae*, but *parasiti curiae*, in passing a court up beyond her bounds, for their own scraps and advantage. The third sort is of those that may be accounted the left hands of courts; persons that are full of nimble and sinister tricks and shifts, whereby they pervert the plain and direct courses of courts, and bring justice into oblique lines and labyrinths. And the fourth is, the poller and ex-acter of fees; which justifies the common resemblance of the courts of justice to the bush, whereunto while the sheep flies for defence in weather, he is sure to lose part of his fleece. On the other side, an ancient clerk, skilful in precedents, wary in proceeding, and understanding in the business of the court, is an excellent finger of a court, and doth many times point the way to the judge himself.

Fourthly, for that which may concern the sovereign and estate. Judges ought above all to remember the conclusion of the Roman twelve tables; *salus populi suprema lex*; and to know that laws, except they be in order to that end, are but things captious, and oracles not well inspired. Therefore it is an happy thing in a state, when kings and states do often consult with judges; and again, when judges do often consult with the king and state; the one, when there is matter of law intervenient in business of state; the other, when there is some consideration of state intervenient in matter of law. For many times the things deduced to judgment may be *meum* and *tuum*, when the reason and consequence thereof may trench to point of estate: I call matter of estate, not only the parts of sovereignty, but whatsoever introduceth any great alteration, or dangerous precedent; or concerneth manifestly any great portion of people. And let no man weakly conceive, that just laws, and true policy, have any antipathy; for they are like the spirits and sinews, that one moves with the other. Let judges also remember, that Solomon's throne was supported by lions on both sides; let them be lions, but yet lions under the throne; being circumspect that they do not check or oppose any points of sovereignty. Let not judges also be so ignorant of their own right, as to think there is not left to them, as a principal part of their office, a wise use and application of laws. For they may remember what the apostle saith of a greater law than theirs; *Nos scimus quia lex bona est, modo quis ea utatur legitime*.

## LVII. Of ANGER.

**T**O seek to extinguish anger utterly, is but a bravery of the Stoicks. We have better oracles: *Be angry, but sin not. Let not the sun go down upon your anger*. Anger must be limited and confined, both in race and in time. We will first speak, how the natural inclination and habit, *to be angry*, may be attempered and calmed. Secondly, how the particular motions of anger may be repressed, or at least restrained from doing mischief. Thirdly, how to raise anger, or appease anger, in another.

For the first, there is no other way but to meditate and ruminate well upon the effects of anger, how it troubles man's life. And the best time to do this, is to look back upon anger when the fit is thoroughly over. Seneca saith well; That anger is like ruin, which breaks itself upon that it falls. The Scripture exhorteth us, *to possess our souls in patience*. Whosoever is out of patience, is out of possession of his soul. Men must not turn bees;

*animasque in vulnere ponunt.*

Anger is certainly a kind of baseness; as it appears well in the weakness of those subjects in whom it reigns; children, women, old folks, sick folks. Only men must beware, that they carry their anger rather with scorn, than with fear; so that they may seem rather to be above the injury, than below it. Which is a thing easily done, if a man will give law to himself in it.



For the second point, the causes and motives of anger are chiefly three. First, to be too sensible of hurt; for no man is angry that feels not himself hurt: and therefore tender and delicate persons must needs be oft angry; they have so many things to trouble them, which more robust natures have little sense of. The next is, the apprehension and construction of the injury offered to be, in the circumstances thereof, full of contempt. For contempt is that which putteth an edge upon anger, as much or more than the hurt itself. And therefore when men are ingenious in picking out circumstances of contempt, they do kindle their anger much. Lastly, opinion of the touch of a man's reputation doth multiply and sharpen anger. Wherein the remedy is, that a man should have, as *Consalvo* was wont to say, *relem honoris crassorem*. But in all restrainings of anger, it is the best remedy to win time; and to make a man's self believe, that the opportunity of his revenge is not yet come: but that he foresees a time for it, and so to still himself in the mean time, and reserve it.

To contain anger from mischief, though it take hold of a man, there be two things whereof you must have special caution. The one, of extreme bitterness of words, especially if they be aculeate and proper: for *communia maledicta* are nothing so much: and again, that in anger a man reveal no secrets; for that makes him not fit for society. The other, that you do not peremptorily break off, in any business, in a fit of anger: but howsoever you shew bitterness, do not act any thing that is not revocable.

For raising and appealing anger in another; it is done chiefly by chusing of times. When men are frowardest and worst disposed, to incense them. Again, by gathering (as was touched before) all that you can find out to aggravate the contempt: and the two remedies are by the contraries. The former, to take good times, when first to relate to a man an angry business: for the first impression is much. And the other is, to sever, as much as may be, the construction of the injury, from the point of contempt: imputing it to misunderstanding, fear, passion, or what you will.

### LVIII. OF VICISSITUDE OF THINGS.

**SOLOMON** saith, *There is no new thing upon the earth*: so that as Plato had an imagination, that all knowledge was but remembrance; so Solomon giveth his sentence, *that all novelty is but oblivion*. Whereby you may see, that the river of Lethe runneth as well above ground, as below. There is an abstruse astrologer, that saith, if it were not for two things that are constant (the one is, that the fixed stars ever stand at like distance one from another, and never come nearer together, nor go farther asunder: the other, that the diurnal motion perpetually keepeth time) no individual would last one moment. Certain it is, that the matter is in a perpetual flux, and never at a stay. The great winding-sheets that bury all things in oblivion, are two: deluges, and earthquakes. As for conflagrations, and great droughts, they do not merely dispeople and destroy. Phacton's car went but a day. And the three years drought, in the time of Elias, was but particular, and left people alive. As for the great burnings by lightnings, which are often in the West-Indies, they are but narrow. But in the other two destructions, by deluge and earthquake, it is farther to be noted, that the remnant of people which hap to be relieved, are commonly ignorant and mountainous people, that can give no account of the time past: so that the oblivion is all one, as if none had been left. If you consider well of the people of the West-Indies, it is very probable that they are a newer, or a younger people, than the people of the old world: and it is much more likely, that the destruction that hath heretofore been there, was not by earthquakes (as the Egyptian priest told Solon, concerning the island of Atlantis, that it was swallowed by an earthquake) but rather, that it was desolated by a particular deluge; for earthquakes are seldom in those parts: but, on the other side, they have such pouring rivers, as the rivers of Asia, and Africa, and Europe, are but brooks to them. Their Andes likewise, or mountains, are far higher than those with us; whereby it seems, that the remnants of generation of men were, in



in such a particular deluge, saved. As for the observation that Machiavel hath, that the jealousy of sects doth much extinguish the memory of things; tracing Gregory the Great, that he did what in him lay, to extinguish all heathen antiquities; I do not find that those zeals do any great effects, nor last long; as it appeared in the succession of Sabinian, who did revive the former antiquities.

The vicissitude or mutations in the superior globe are no fit matter for this present argument. It may be, Plato's great year, if the world should last so long, would have some effect, not in renewing the state of like individuals (for that is the sume of those, that conceive the celestial bodies have more accurate influences upon these things below, than indeed they have) but in gross. Comets, out of question, have likewise power and effect over the gross and mass of things: but they are rather gazed upon, and waited upon in their journey, than wisely observed in their effects; specially in their respective effects: that is, what kind of comet, for magnitude, colour, version of the beams, placing in the region of heaven, or lasting, produceth what kind of effects.

There is a toy, which I have heard, and I would not have it given over, but waited upon a little. They say it is observed in the Low Countries (I know not in what part) that every five and thirty years, the same kind and suite of years and weathers, comes about again: as great frost, great wet, great droughts, warm winters, summers with little heat, and the like; and they call it the prime. It is a thing I do the rather mention, because, computing backwards, I have found some concurrence.

But to leave these points of nature, and to come to men. The greatest vicissitude of things amongst men is the vicissitude of sects and religions: for those orbs rule in mens minds most. The true religion is built upon the rock; the rest are tossed upon the waves of time. To speak therefore of the causes of new sects, and to give some counsel concerning them, as far as the weakness of human-judgment can give stay to so great revolutions.

When the religion formerly received is rent by discords; and when the holiness of the professors of religion is decayed and full of scandal; and withal the times be stupid, ignorant, and barbarous, you may doubt the springing up of a new sect; if then also there should arise any extravagant and strange spirit to make himself author thereof: all which points held when Mahomet published his law. If a new sect have not two properties, fear it not; for it will not spread. The one is the supplanting, or the opposing of authority established: for nothing is more popular than that. The other is the giving licence to pleasures and a voluptuous life. For as for speculative heresies (such as were in ancient times the Arians, and now the Arminians) though they work mightily upon mens wits, yet they do not produce any great alterations in states; except it be by the help of civil occasions. There be three manner of plantations of new sects: by the power of signs and miracles; by the eloquence and wisdom of speech and persuasion; and by the sword. For martyrdoms, I reckon them amongst miracles; because they seem to exceed the strength of human nature: and I may do the like of superlative and admirable holiness of life. Surely there is no better way to stop the rising of new sects and schisms, than to reform abuses; to compound the smaller differences; to proceed mildly, and not with sanguinary persecutions; and rather to take off the principal authors, by winning and advancing them, than to enrage them by violence and bitterness.

The changes and vicissitudes in wars are many: but chiefly in three things; in the seats or stages of the war; in the weapons; and in the manner of the conduct. Wars, in ancient time, seemed more to move from east to west: for the Persians, Assyrians, Arabians, Tartars (which were the invaders) were all eastern people. It is true, the Gauls were western; but we read but of two incursions of theirs; the one to Gallo-Gracia, the other to Rome. But east and west have no certain points of heaven; and no more have the wars, either from the east or west, any certainty of observation. But north and south are fixed: and it hath seldom or never been seen, that the far southern people have invaded the northern, but contrariwise; whereby it is manifest, that the northern tract of the world is in nature the more martial region: be it in respect of the stars



of that hemisphere, or of the great continents that are upon the north; whereas the south part, for aught that is known, is almost all sea; or (which is most apparent) of the cold of the northern parts; which is that, which, without aid of discipline, doth make the bodies hardest, and the courages warmest.

Upon the breaking and shivering of a great state and empire, you may be sure to have wars. For great empires, while they stand, do enervate and destroy the forces of the natives which they have subdued, resting upon their own protecting forces: and then when they fall also, all goes to ruin, and they become a prey. So was it in the decay of the Roman empire, and likewise in the empire of Almaine, after Charles the Great, every bird taking a feather; and were not unlike to befall to Spain, if it should break. The great accessions and unions of kingdoms do likewise stir up wars. For when a state grows to an over-power, it is like a great flood, that will be sure to overflow. As it hath been seen in the states of Rome, Turkey, Spain, and others. Look, when the world hath fewest barbarous people, but such as commonly will not marry or generate, except they know means to live (as it is almost every where at this day, except Tartary) there is no danger of inundations of people: but when there be great shoals of people, which go on to populate, without foreseeing means of life and sustentation, it is of necessity that once in an age or two they discharge a portion of their people upon other nations; which the ancient northern people were wont to do by lot; casting lots what part should stay at home, and what should seek their fortunes. When a warlike state grows soft and effeminate, they may be sure of a war. For commonly such states are grown rich in the time of their degenerating; and so the prey inviteth, and their decay in valour encourageth a war.

As for the weapons, it hardly falleth under rule and observation: yet we see, even they have returns and vicissitudes. For certain it is, that ordnance was known in the city of the Oxidracas in India; and was that which the Macedonians called thunder and lightening, and magick. And it is well known, that the use of ordnance hath been in China above two thousand years. The conditions of weapons, and their improvement are, first, the fetching afar off; for that outruns the danger; as it is seen in ordnance and muskets. Secondly, the strength of the percussion; wherein likewise ordnance do exceed all artetations, and ancient inventions. The third is, the commodious use of them; as that they may serve in all weathers; that the carriage may be light and manageable; and the like.

For the conduct of the war: at the first, men rested extremely upon number: they did put the wars likewise upon main force and valour, pointing days for pitched fields, and so trying it out, upon an even match; and they were more ignorant in ranging and arraying their battles. After, they grew to rest upon number rather competent than vast; they grew to advantages of place, cunning diversions, and the like: and they grew more skilful in the ordering of their battles.

In the youth of a state, arms do flourish; in the middle age of a state, learning; and then both of them together for a time: in the declining age of a state, mechanical arts and merchandize. Learning hath its infancy, when it is but beginning, and almost childish: then its youth, when it is luxuriant and juvenile; then its strength of years, when it is solid and reduced: and lastly, its old age, when it waxeth dry and exhaust. But it is not good to look too long upon these turning wheels of vicissitude, lest we become giddy. As for the philosophy of them, that is but a circle of tales, and therefore not fit for this writing.

### *Of a KING.*

1. **A** King is a mortal god on earth, unto whom the living God hath lent his own name as a great honour; but withal told him, he should die like a man, lest he should be proud and flatter himself, that God hath with his name imparted unto him his nature also.
2. Of all kind of men, God is the least beholden unto them; for he doth most for them, and they do ordinarily least for him.



3. A king that would not feel his crown too heavy for him, must wear it every day; but if he think it too light, he knoweth not of what metal it is made.

4. He must make religion the rule of government, and not to balance the scale; for he that casteth in religion only to make the scales even, his own weight is contained in those characters, *Mene, mene, tekel, upharzin, He is found too light, his kingdom shall be taken from him.*

5. And that king that holds not religion the best reason of state, is void of all piety and justice, the supporters of a king.

6. He must be able to give counsel himself, but not rely thereupon; for though happy events justify their counsels, yet it is better that the evil event of good advice be rather imputed to a subject than a sovereign.

7. He is the fountain of honour, which should not run with a waste pipe, lest the courtiers sell the water, and then (as papists say of their holy wells) it loses the virtue.

8. He is the life of the law, not only as he is *lex loquens* himself, but because he animateth the dead letter, making it active towards all his subjects *præmio et pœna.*

9. A wise king must do less in altering his laws than he may; for new government is ever dangerous. It being true in the body politick, as in the corporal, that *omnis subita immutatio est periculosa*; and though it be for the better, yet it is not without a fearful apprehension; for he that changeth the fundamental laws of a kingdom, thinketh there is no good title to a crown, but by conquest.

10. A king that setteth to sale seats of justice, oppresseth the people; for he teacheth his judges to sell justice; and *pretio parata pretio venditur justitia.*

11. Bounty and magnificence are virtues very regal, but a prodigal king is nearer a tyrant than a parsimonious; for store at home draweth not his contentions abroad; but want supplieth itself of what is next, and many times the next way: a king herein must be wise, and know what he may justly do.

12. That king which is not feared, is not loved; and he that is well seen in his craft, must as well study to be feared as loved; yet not loved for fear, but feared for love.

13. Therefore, as he must always resemble him whose great name he beareth, and that as in manifesting the sweet influence of his mercy on the severe stroke of his justice sometimes, so in this not to suffer a man of death to live; for besides that the land doth mourn, the restraint of justice towards sin doth more retard the affection of love, than the extent of mercy doth inflame it; and sure where love is [ill] bestowed, fear is quite lost.

14. His greatest enemies are his flatterers; for though they ever speak on his side, yet their words still make against him.

15. The love which a king oweth to a weal publick, should not be restrained to any one particular; yet that his more special favour do reflect upon some worthy ones, is somewhat necessary, because there are few of that capacity.

16. He must have a special care of five things, if he would not have his crown to be but to him *infelix felicitas.*

First, that *simulata sanctitas* be not in the church; for that is *duplex iniquitas.*

Secondly, that *inutis aequitas* sit not in the chancery; for that is *inepta misericordia.*

Thirdly, that *utilis iniquitas* keep not the exchequer; for that is *crudele latrocinium.*

Fourthly, that *fidelis temeritas* be not his general; for that will bring but *seram poenitentiam.*

Fifthly, that *infidelis prudentia* be not his secretary; for that is *anguis sub viridi herba.*

To conclude; as he is of the greatest power, so he is subject to the greatest cares, made the servant of his people, or else he were without a calling at all.

He then that honoureth him not is next an atheist, wanting the fear of God in his heart.



*A fragment of an essay on FAME.*

THE poets make Fame a monster. They describe her in part finely and elegantly; and in part gravely and sententious. They say: Look, how many feathers she hath, so many eyes she hath underneath; so many tongues; so many voices; she pricks up so many ears.

This is a flourish: there follow excellent parables; as, that she gathereth strength in going; that she goeth upon the ground, and yet hideth her head in the clouds: that in the day-time she sitteth in a watch-tower, and flieth most by night: that she minglETH things done, with things not done: and that she is a terror to great cities. But that which passeth all the rest is, they do recount that the Earth, mother of the giants, that made war against Jupiter, and were by him destroyed, thereupon in an anger brought forth Fame; for certain it is, that rebels, figured by the giants, and seditious fames and libels, are but brothers and sisters; masculine and feminine. But now if a man can tame this monster, and bring her to feed at the hand, and govern her, and with her fly other ravening fowl, and kill them, it is somewhat worth. But we are infected with the style of the poets. To speak now in a sad and a serious manner; there is not in all the politicks a place less handled, and more worthy to be handled, than this of fame. We will therefore speak of these points: what are false fames; and what are true fames; and how they may be best discerned; how fames may be sown and raised; how they may be spread and multiplied; and how they may be checked and laid dead. And other things concerning the nature of fame. Fame is of that force, as there is scarcely any great action wherein it hath not a great part, especially in the war. Mucianus undid Vitellius by a fame that he scattered, that Vitellius had in purpose to remove the legions of Syria into Germany, and the legions of Germany into Syria; whereupon the legions of Syria were infinitely inflamed. Julius Caesar took Pompey unprovided, and laid asleep his industry and preparations, by a fame that he cunningly gave out, how Caesar's own soldiers loved him not; and being wearied with the wars, and laden with the spoils of Gaul, would forsake him as soon as he came into Italy. Livia settled all things for the succession of her son Tiberius, by continual giving out, that her husband Augustus was upon recovery and amendment. And it is an usual thing with the bashaws, to conceal the death of the Great Turk from the janizaries and men of war, to save the sacking of Constantinople, and other towns, as their manner is. Themistocles made Xerxes, king of Persia, post apace out of Grecia, by giving out that the Grecians had a purpose to break his bridge of ships which he had made athwart the Hellespont. There be a thousand such like examples, and the more they are, the less they need to be repeated, because a man meeteth with them every where: therefore let all wise governors have as great a watch and care over fames, as they have of the actions and designs themselves.

*The rest was not finished.*



NOVEL

*[Faint, illegible markings]*

1



# COLLECTION

OF

## APOPHTHEGMS

NEW and OLD.

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### HIS LORDSHIP'S PREFACE.

**J**ULIUS Cæsar did write a collection of *apophthegms*, as appears in an epistle of Cicero; so did Macrobius, a consular man. I need say no more for the worth of a writing of that nature. It is pity Cæsar's book is lost: for I imagine they were collected with judgment and choice; whereas that of Plutarch and Stobæus, and much more the modern ones, draw much of the dregs. Certainly they are of excellent use. They are *mnrones verborum*, pointed speeches. The words of the wise are as goads, saith Solomon. Cicero prettily calleth them *salinas*, salt-pits, that you may extract salt out of, and sprinkle it where you will. They serve to be interlaced in continued speech. They serve to be recited upon occasion of themselves. They serve if you take out the kernel of them, and make them your own. I have, for my recreation amongst more serious studies, collected some few of them (a): therein spanning the old; not omitting any, because they are vulgar (for many vulgar ones are excellent good) nor for the meanness of the person, but because they are dull and flat; and adding many new, that otherwise would have died.

(a) This collection his lordship made out of his memory, without turning any book. *Resolv.*



## COLLECTION

OF

## Apophthegms New and Old.

1. **Q**UEEN Elizabeth, the morrow of her coronation (it being the custom to release prisoners at the inauguration of a prince) went to the chapel; and in the great chamber, one of her courtiers, who was well known to her, either out of his own motion, or by the instigation of a wiser man, presented her with a petition; and before a great number of courtiers, besought her with a loud voice, "That now this good time, there might be four or five principal prisoners more released: those were the four evangelists and the apostle St. Paul, who had been long shut up in an unknown tongue, as it were in prison; so as they could not converse with the common people." The Queen answered very gravely, "That it was best first to enquire of them, Whether they would be released or no."

2. **Q**ueen Ann Bullen, at the time when she was led to be beheaded in the Tower, called one of the king's privy chamber to her, and said unto him, "Commend me to the king, and tell him, that he hath been ever constant in his courte of advancing me; from a private gentlewoman he made me a marchioness; and from a marchioness a queen; and now, that he hath left no higher degree of earthly honour, he intends to crown my innocence with the glory of martyrdom."

3. His majesty James the first, king of Great Britain, having made unto his parliament an excellent and large declaration, concluded thus; "I have now given you a clear mirrour of my mind; use it therefore like a mirrour, and take heed how you let it fall, or how you soil it with your breath."

4. A great officer in France was in danger to have lost his place; but his wife, by her suit and means making, made his peace; whereupon a pleasant fellow said, "That he had been crushed, but that he saved himself upon his horns."

5. His majesty said to his parliament at another time, finding there were some causeless jealousies sown amongst them; "That the king and his people (whereof the parliament is the representative body) were as husband and wife; and therefore that of all other things jealousy was between them most pernicious."

6. His majesty, when he thought his council might note in him some variety in busineses, though indeed he remained constant, would say, "That the sun many times shineth watery; but it is not the sun which causeth it, but some cloud rising betwixt us and the sun: and when that is scattered, the sun is as it was, and comes to his former brightness."

7. His majesty, in his answer to the book of the cardinal of Evereux (who had in a grave argument of divinity sprinkled many witty ornaments of poetry and humanity) saith; "That these flowers were like blue, and yellow, and red flowers in the corn, which make a pleasant shew to those that look on, but they hurt the corn."



8. Sir Edward Coke being vehement against the two provincial councils of Wales, and the north, said to the king; "There was nothing there but a kind of confusion and hotch-potch of justice: one while they were a star-chamber; another while a king's-bench; another, a common-pleas; another, a commission of oyer and terminer." His majesty answered; "Why, Sir Edward Coke, they be like houses in progress, where I have not, nor can have, such distinct rooms of state, as I have here at Whitehall, or at Hampton-court."

9. The commissioners of the treasury moved the king for the relief of his estate, to disafforest some forests of his, explaining themselves of such forests as lay out of the way, not near any of the king's houses, nor in the course of his progress; whereof he should never have use nor pleasure. "Why (saith the king) do you think that Solomon had use and pleasure of all his three hundred concubines!"

10. His majesty, when the committees of both houses of parliament presented unto him the instrument of union of England and Scotland, was merry with them; and amongst other pleasant speeches, shewed unto them the laird of Lawreston a Scotchman, who was the tallest and greatest man that was to be seen, and said; "Well, now we are all one, yet none of you will say, but here is one Scotchman greater than any Englishman," which was an ambiguous speech; but it was thought he meant it of himself.

11. His majesty would say to the lords of his council when they sat upon any great matter, and came from council in to him, "Well, you have sat, but what have you hatched?"

12. When the arch-duke did raise his siege from the Grave, the then secretary came to queen Elizabeth. The queen (having first intelligence thereof) said to the secretary, "Vote you what? The arch-duke is risen from the Grave." He answered; "What, without the trumpet of the arch-angel?" The queen replied, "Yes; without the sound of trumpet."

13. Queen Elizabeth was importuned much by my lord of Essex, to supply divers great offices that had been long void: the queen answered nothing to the matter; but rose up on the sudden, and said; "I am sure my office will not be long void." And yet at that time there was much speech of troubles, and divisions about the crown, to be after her decease; but they all vanished; and king James came in, in a profound peace.

14. The council did make remonstrance unto queen Elizabeth, of the continual conspiracies against her life; and namely, that a man was lately taken, who stood ready in a very dangerous and suspicious manner to do the deed: and they shewed her the weapon, wherewith he thought to have acted it. And therefore they advised her, that she should go lels abroad to take the air, weakly attended, as she used. But the queen answered; "That she had rather be dead, than put in custody."

15. The lady Paget, that was very private with queen Elizabeth, declared herself much against the match with Monsieur. After Monsieur's death, the queen took extreme grief (at least as she made shew) and kept in within her bed-chamber and one ante-chamber for three weeks space, in token of mourning: at last she came forth into the privy-chamber, and admitted her ladies to have access unto her; and amongst the rest, my lady Paget presented herself, and came to her with a smiling countenance. The queen bent her brows, and seemed to be highly displeased, and said to her; "Madam, you are not ignorant of my extreme grief, and do you come to me with a countenance of joy?" My lady Paget answered; "Alas, if it please your majesty, it is impossible for me to be absent from you three weeks, but that when I see you, I must look cheerfully." "No, no, (said the queen, not forgetting her former averments to the match) you have some other conceit in it, tell me plainly." My lady answered, "I must obey you; it is this. I was thinking how happy your majesty was, you married not Monsieur; for seeing you take such thought for his death, being but your friend; if he had been your husband, sure it would have cost you your life."

16. Henry the fourth of France his queen was young with child; count Soissons, that



that had his expectation upon the crown, when it was twice or thrice thought that the queen was with child before, said to some of his friends, "That it was but with a pillow." This had some ways come to the king's ear; who kept it till such time as the queen waxed great: then he called the count of Solsons to him, and said, laying his hand upon the queen's belly; "Come "cousin, is this a pillow?" The count of Solsons answered; "Yes, sir, it is "a pillow for all France to sleep upon."

17. King Henry the fourth of France was so punctual of his word, after it was once passed, that they called him "The king of the faith."

18. The said king Henry the fourth was moved by his parliament to a war against the protestants: he answered, "Yes, I mean it; I will make every one "of you captains; you shall have companies assigned you." The parliament observing whereunto his speech tended, gave over, and deserted his motion.

19. Queen Elizabeth was wont to say, upon the commission of sales, "That "the commissioners used her like strawberry-wives, that laid two or three "great strawberries at the mouth of their pot, and all the rest were little ones; "so they made her two or three good prizes of the first particulars, but fell "straightways."

20. Queen Elizabeth used to say of her instructions to great officers, "That "they were like to garments, strait at the first putting on, but did by and by wear "loose enough."

21. A great officer at court, when my lord of Essex was first in trouble; and that he, and those that dealt for him, would talk much of my lord's friends, and of his enemies, answered to one of them; "I will tell you, I know but one friend "and one enemy my lord hath; and that one friend is the queen, and that one "enemy is himself."

22. The book of deposing king Richard the second, and the coming in of Henry the fourth, supposed to be written by doctor Hayward, who was committed to the Tower for it, had much incensed queen Elizabeth; and she asked Mr. Bacon, being then of her counsel learned, "Whether there were any treason contained in it?" Who intending to do him a pleasure, and to take off the queen's bitterness with a merry conceit, answered; "No, madam, for treason "I cannot deliver opinion that there is any, but very much felony." The queen apprehending it gladly, asked, "How? and wherein?" Mr. Bacon answered, "Because he had stolen many of his sentences and conceits out of Cornelius "Tacitus."

23. Queen Elizabeth being to resolve upon a great officer, and being by some, that canvassed for others, put in some doubt of that person whom she meant to advance, called for Mr. Bacon; and told him, "She was like one with a lantern "seeking a man;" and seemed unsatisfied in the choice she had of a man for that place. Mr. Bacon answered her, "That he had heard that in old time there "was usually painted on the church walls the day of doom, and God sitting in "judgment, and Saint Michael by him, with a pair of balances; and the soul, "and the good deeds in the one balance; and the faults and the evil deeds in "the other: and the soul's balance went up far too light. Then was our lady "painted with a great pair of beads, who cast them into the light balance, and "brought down the scale: so (he said) place and authority, which were in "her majesty's hands to give, were like our lady's beads, which though men, "through any imperfections, were too light before, yet when they were cast in, "made weight competent."

24. Queen Elizabeth was dilatory enough in suits, of her own nature; and the lord treasurer Burleigh being a wise man, and willing therein to feed her humour, would say to her; "Madam, you do well to let suitors stay; for I "shall tell you, *bis dat, qui cito dat*; if you grant them speedily, they will "come again the sooner."

25. Sir Nicholas Bacon, who was keeper of the great seal of England, when queen Elizabeth in her progress came to his house at Gorhambury, and said to him; "My lord, what a little house have you gotten?" answered her; "Ma- "dam, my house is well, but it is you that have made me too great for my house."

26. There



26. There was a conference in parliament, between the lords house, and the house of commons, about a bill of accountants, which came down from the lords to the commons; which bill prayed, That the lands of accountants, whereof they were seized when they entered upon their office, might be liable to their arrears to the queen. But the commons desired, That the bill might not look back to accountants that were already, but extend only to accountants hereafter. But the lord treasurer said; "Why, I pray you, if you had lost your purse by the way, would you look forwards, or would you look back? The queen hath lost her purse."

27. The lord keeper, Sir Nicholas Bacon, was asked his opinion by my lord of Leicester, concerning two persons whom the queen seemed to think well of: "By my troth, my lord, (said he) the one is a grave counsellor; the other is a proper young man; and so he will be as long as he lives."

28. My lord of Leicester, favourite to queen Elizabeth, was making a large chase about Cornbury park; meaning to enclose it with posts and rails; and one day was casting up his charge what it would come to. Mr. Goldingham, a free-spoken man, stood by, and said to my lord; "Methinks your lordship goeth not the cheapest way to work. Why, Goldingham," said my lord? "Marry, my lord, (said Goldingham) count you but upon the posts, for the country will find you railing."

29. The lord keeper, Sir Nicholas Bacon, was asked his opinion by queen Elizabeth, of one of these monopoly licences? And he answered; "Madam, will you have me speak the truth? *Licentia omnes deteriores sumus*: We are all the worse for licences."

30. My lord of Essex, at the succour of Roan, made twenty four knights, which at that time was a great number. Divers of those gentlemen were of weak and small means; which when queen Elizabeth heard, she said; "My lord might have done well to have built his alms-house, before he made his knights."

31. The deputies of the reformed religion, after the massacre which was at Paris upon St. Bartholomew's day, treated with the king and queen-mother, and some other of the council, for a peace. Both sides were agreed upon the articles. The question was, upon the security for the performance. After some particulars propounded and rejected, the queen-mother said, "Why, is not the word of a king sufficient security?" One of the deputies answered; "No, by St. Bartholomew, madam."

32. There was a French gentleman, speaking with an English, of the law Salique; That women were excluded from inheriting the crown of France. The English said; "Yes, but that was meant of the women themselves, not of such males as claimed by women." The French gentleman said, "Where do you find that gloss?" The English answered, "I'll tell you, Sir; look on the backside of the record of the law Salique, and there you shall find "it indorsed:" implying, there was no such thing as the law Salique, but that it is a mere fiction.

33. A friar of France, being in an earnest dispute about the law Salique, would needs prove it by Scripture; citing that verse of the gospel; *Lilia agri non laborant, neque nent*; the lilies of the field do neither labour nor spin: applying it thus; That the flower-de-luces of France cannot descend, neither to the distaff, nor to the spade; that is, not to a woman, nor to a peasant.

34. When peace was renewed with the French in England, divers of the great counsellors were presented from the French with jewels: the lord Henry Howard, being then earl of Northampton, and a counsellor, was omitted. Whereupon the king said to him, "My lord, how happens it that you have not a jewel as well as the rest?" My lord answered, according to the fable in *Æsop*; *Non sum Gallus, itaque non reperi gemmam*.

35. The same earl of Northampton, then lord privy seal, was asked by king James openly at the table, where commonly he entertained the king with discourse; the king asked him upon the sudden; "My lord, have you not a desire "to see Rome?" My lord privy seal answered; "Yes indeed, Sir." The



king said, "And why?" My lord answered; "Because, if it please your majesty, it was the seat of the greatest monarchy, and the seminary of the bravest men of the world, whilst it was heathen: and then, secondly, because afterwards it was the see of so many holy bishops in the primitive church, most of them martyrs." The king would not give it over, but said; "And for nothing else?" My lord answered; "Yes, if it please your majesty, for two things more: the one, to see him, who, they say, hath so great a power to forgive other men their sins, to confess his own sins upon his knees before a chaplain or priest: and the other, to hear Antichrist say his creed."

36. Sir Nicholas Bacon being appointed a judge for the northern circuit, and having brought his trials that came before him to such a pass, as the passing of sentence on malefactors, he was by one of the malefactors mightily importuned for to save his life; which, when nothing that he had said did avail, he at length desired his mercy on account of kindred. "Prithee," said my lord judge, "how came that in?" Why, if it please you, my lord, your name is Bacon, "and mine is Hog, and in all ages Hog and Bacon have been so near kindred, that they are not to be separated. Ay, but," replied judge Bacon, "you and I cannot be kindred, except you be hanged; for Hog is not Bacon until it be well hanged."

37. Two scholars and a countryman travelling upon the road, one night lodged all in one inn, and supped together, where the scholars thought to have put a trick upon the countryman, which was thus: the scholars appointed for supper two pigeons, and a fat capon, which being ready, was brought up, and they having sat down, the one scholar took up one pigeon, the other scholar took the other pigeon, thinking thereby that the countryman should have sat still, until that they were ready for the carving of the capon; which he perceiving, took the capon and laid it on his trencher, and thus said, "Daintily contrived, every man a bird."

38. Jack Roberts was desired by his taylor, when the reckoning grew somewhat high, to have a bill of his hand. Roberts said, "I am content, but you must let no man know it." When the taylor brought him the bill, he tore it as in choler, and said to him, "You use me not well; you promised me that no man should know it, and here you have put in, *Be it known unto all men by these presents.*"

39. Sir Walter Rawleigh was wont to say of the ladies of queen Elizabeth's privy-chamber, and bed-chamber, "that they were like witches, they could do hurt, but they could do no good."

40. There was a minister deprived for inconformity, who said to some of his friends, "that if they deprived him, it should cost an hundred mens lives." The party understood it, as if being a turbulent fellow, he would have moved sedition, and complained of him; whereupon being convented and appoled upon that speech, he, said his meaning was, "that if he lost his benefice, he would practise physick, and then he thought he should kill an hundred men in time."

41. Secretary Bourn's son kept a gentleman's wife in Shropshire, who lived from her husband with him: when he was weary of her, he caused her husband to be dealt with to take her home, and offered him five hundred pounds for repARATION; the gentleman went to Sir H. Sidney, to take his advice upon this offer, telling him, "that his wife promised now a new life; and, to tell him truth, five hundred pounds would come well with him; and besides, that sometimes he wanted a woman in his bed. By my troth," said Sir Henry Sidney, "take her home, and take the money; then whereas other cuckolds wear their horns plain, you may wear yours gilt."

42. When Rabelais, the great jester of France, lay on his death-bed, and they gave him the extreme unction, a familiar friend came to him afterwards, and asked him how he did? Rabelais answered, "Even going my journey, they have greased my boots already."

43. Mr. Bromley solicitor, giving in evidence for a deed, which was impeached to be fraudulent, was urged by the counsel on the other side with this  
presumption,



presumption, That in two former suits when title was made, that deed was passed over in silence, and some other conveyance stood upon. Mr. justice Catline taking in with that side, asked the solicitor, "I pray thee, Mr. Solicitor, let me ask you a familiar question; I have two geldings in my stable; I have divers times business of importance, and still I send forth one of my geldings, and not the other; would you not think I set him aside for a jade?" No, "my lord (said Bromley) I would think you spared him for your own saddle."

45. Thales, as he looked upon the stars, fell towards water; whereupon it was after said, "that if he had looked into the water he might have seen the stars, but looking up to the stars he could not see the water."

45. A man and his wife in bed together, she towards morning pretended herself to be ill at ease, desiring to lie on her husband's side; so the good man, to please her, came over her, making some short stay in his passage over; where she had not long lain, but desired to lie in her old place again: quoth he, "How can it be effected?" She answered, "Come over me again. I had rather," said he, "go a mile and a half about."

46. A thief being arraigned at the bar for stealing a mare, in his pleading urged many things in his own behalf, and at last nothing availing, he told the bench, the mare rather stole him, than he the mare; which in brief he thus related: That passing over several grounds about his lawful occasions, he was pursued close by a fierce mastiff dog, and so was forced to save himself by leaping over a hedge, which being of an agile body he effected; and in leaping, a mare standing on the other side of the hedge, leaped upon her back, who running furiously away with him, he could not by any means stop her, until he came to the next town, in which town the owner of the mare lived, and there was he taken, and here arraigned.

47. Master Mason of Trinity college, sent his pupil to another of the fellows, to borrow a book of him, who told him, "I am loth to lend my books out of my chamber, but if it please thy tutor to come and read upon it in my chamber, he shall as long as he will." It was winter, and some days after the same fellow sent to Mr. Mason to borrow his bellows; but Mr. Mason said to his pupil, "I am loth to lend my bellows out of my chamber, but if thy tutor would come and blow the fire in my chamber, he shall as long as he will."

48. A notorious rogue being brought to the bar, and knowing his case to be desperate, instead of pleading, he took to himself the liberty of jesting, and thus said, "I charge you in the king's name, to seize and take away that man (meaning the judge) in the red gown, for I go in danger of my life because of him."

49. In Flanders, by accident a Flemish tiler fell from the top of a house upon a Spaniard, and killed him, though he escaped himself; the next of the blood prosecuted his death with great violence, and when he was offered pecuniary recompence, nothing would serve him but *lex talionis*: whereupon the judge said to him, "that if he did urge that sentence, it must be, that he should go up to the top of the house, and then fall down upon the tiler."

50. A rough-hewn seaman, being brought before a wise just-als for some misdemeanor, was by him sent away to prison, and being somewhat refractory after he heard his doom, inasmuch as he would not stir a foot from the place where he stood, saying, "it were better to stand where he was, than go to a worse place:" the justice thereupon, to shew the strength of his learning, took him by the shoulder, and said, "Thou shalt go *nogus vogus*," instead of *nolens volens*.

51. Francis the first of France, used for his pleasure sometimes to go disguised: so walking one day in the company of the cardinal of Bourbon near Paris, he met with a peasant with a new pair of shoes upon his arm: so he called unto him, and said; "By our lady, these be good shoes, what did they cost thee?" The peasant said, "Guefs." The king said, "I think some five sols." Saith the peasant, "You have lyed; but a *carlois*. What, villain," said the cardinal of Bourbon, "thou art dead, it is the king." The peasant replied; "The devil take him of you and me, that knew so much."



52. There was a young man in Rome, that was very like Augustus Cæsar; Augustus took knowledge of him, and sent for the man, and asked him, "Was your mother ever at Rome?" He answered; "No, sir, but my father was."

53. A physician advised his patient that had sore eyes, that he should abstain from wine; but the patient said, "I think rather, Sir, from wine and water; for I have often marked it in blue eyes, and I have seen water come forth, but never wine."

54. A debauched seaman being brought before a justice of the peace upon the account of swearing, was by the justice commanded to deposite his sine in that behalf provided, which was two shillings; he thereupon plucking out of his pocket a half crown, asked the justice what was the rate he was to pay for cursing; the justice told him, six-pence: quoth he, "Then a pox take you all for a company of knaves and fools, and there's half a crown for you, I will never stand changing of money."

55. Augustus Cæsar was invited to supper by one of his old friends, that had converted with him in his less fortunes, and had but ordinary entertainment; whereupon at his going away, he said, "I did not know that you and I were so familiar."

56. Agathocles, after he had taken Syracuse, the men whereof, during the siege, had in a bravery spoken of him all the villainy that might be, sold the Syracusans for slaves, and said; "Now if you use such words of me, I will tell your masters of you."

57. Dionysius the elder, when he saw his son in many things very inordinate, said to him, "Did you ever know me do such things?" His son answered, "No, but you had not a tyrant to your father." The father replied, "No, nor you, if you take these courses, will have a tyrant to your son."

58. Callisthenes the philosopher, that followed Alexander's court, and hated the king, being asked by one, how one should become the famouslest man in the world, answered, "By taking away him that is."

59. Agellaus, when one told him there was one did excellently counterfeit a nightingale, and would have had him hear him, said; "Why I have heard the nightingale herself."

60. A great nobleman, upon the complaint of a servant of his, laid a citizen by the heels, thinking to bend him to his servant's desire; but the fellow being stubborn, the servant came to his lord, and told him, "Your lordship, I know, hath gone as far as well you may, but it works not; for yonder fellow is more perverse than before. Said my lord, 'Let's forget him a while, and then he will remember himself.'"

61. One came to a cardinal in Rome, and told him, that he had brought his lordship a dainty white palfry, but he fell lame by the way. Saith the cardinal to him, "I'll tell thee what thou shalt do; go to such a cardinal, and such a cardinal," naming him half a dozen cardinals, "and tell them as much; and so whereas by thy horse, if he had been sound, thou couldst have pleased but one, with thy lame horse thou mayest please half a dozen."

62. A witty rogue coming into a lace-shop, said, he had occasion for some lace; choice whereof being shewed him, he at last pitched upon one pattern, and asked them, how much they would have for so much as would reach from ear to ear, for so much he had occasion for. They told him, for so much: so some few words passing between them, he at last agreed, and told down his money for it, and began to measure on his own head, thus saying; "One ear is here, and the other is nailed to the pillory in Bristol, and I fear you have not so much of this lace by you at present as will perfect my bargain: therefore this piece of lace shall suffice at present in part of payment, and provide the rest with all expedition."

63. Iphicrates the Athenian, in a treaty that he had with the Lacedæmonians for peace, in which question was about security for observing the same, said; "The Athenians would not accept of any security, except the Lacedæmonians did yield up unto them those things, whereby it might be manifest, that they could not hurt them if they would."



64. Euripides would say of persons that were beautiful, and yet in some years, "In fairest bodies not only the spring is pleasant, but also the autumn."

65. There was a captain sent to an exploit by his general with forces that were not likely to achieve the enterprize; the captain said to him, "Sir, appoint but half so many. Why," saith the general? The captain answered; "Because it is better fewer die than more."

66. There was a harbinger who had lodged a gentleman in a very ill room, who expostulated with him somewhat rudely; but the harbinger carelessly said; "You will take pleasure in it when you are out of it."

67. There is a Spanish adage, "Love without end hath no end;" meaning, that if it were begun not upon particular ends it would last.

68. A woman being suspected by her husband for dishonesty, and being by him at last pressed very hard about it, made him quick answer with many protestations, "that she knew no more of what he said than the man in the moon." Now the captain of the ship called the Moon, was the very man she so much loved.

69. Demosthenes when he fled from the battle, and that it was reproached to him, said, "that he that flies might fight again."

70. Gonzalvo would say, "The honour of a soldier ought to be of a strong web;" meaning, that it should not be so fine and curious, that every little disturbance should catch and stick in it.

71. An apprentice of London being brought before the chamberlain by his master for the sin of incontinency, even with his own mistress, the chamberlain thereupon gave him many christian exhortations; and at last he mentioned and pressed the chastity of Joseph, when his mistress tempted him with the like crime of incontinency. "Ay, Sir," said the apprentice; "but if Joseph's mistress had been as handsome as mine is, he could not have forborn."

72. Bias gave in precept, "Love as if you should hereafter hate; and hate as if you should hereafter love."

73. Cineas was an excellent orator and statesman, and principal friend and counsellor to Pyrrhus; and falling in inward talk with him, and discerning the king's endless ambition; Pyrrhus opened himself unto him, that he intended first a war upon Italy, and hoped to achieve it: Cineas asked him, "Sir, what will you do then?" Then (saith he) we will attempt Sicily." Cineas said; "Well, Sir, what then?" Said Pyrrhus, "If the Gods favour us, we may conquer Africa and Carthage: What then, Sir," saith Cineas? "Nay then," saith Pyrrhus, "we may take our rest, and sacrifice and feast every day, and make merry with our friends. Alas, Sir," said Cineas, "may we not do so now without all this ado?"

74. Lamia the courtesan had all power with Demetrius king of Macedon, and by her instigations he did many unjust and cruel acts; whereupon Lyfimachus said, "that it was the first time that ever he knew a whore play in a tragedy."

75. One of the Romans said to his friend, "What think you of one who was taken in the act and manner of adultery?" The other answered, "Marry, I think he was slow at dispatch."

76. Epaminondas, when his great friend and colleague in war was suitor to him to pardon an offender, denied him; afterwards, when a concubine of his made the same suit, he granted it to her; which when Pelopidas seemed to take unkindly, he said; "Such suits are to be granted to whores, but not to persons of worth."

77. Thales being asked when a man should marry, said; "Young men not yet, old men not at all."

78. A company of scholars going together to catch conies, carried one scholar with them, which had not much more wit than he was born with; and to him they gave in charge, that if he saw any, he should be silent, for fear of scaring of them. But he no sooner espied a company of rabbits, before the rest, but he cried aloud, *Ecce multi cuniculi*, which in English signifies, "Behold many conies;" which he had no sooner said, but the conies ran to their burrows: and



and he being checked by them for it, answered, "Who the devil would have thought that the rabbits understood Latin?"

79. A Welshman being at a sessions-house, and seeing the prisoners hold up hands at the bar, related to some of his acquaintance there, "that the judges were good fortune-tellers; for if they did but look upon their hands, they could certainly tell whether they should live or die."

80. Solon compared the people unto the sea, and orators and counsellors to the winds; for that the sea would be calm and quiet, if the winds did not trouble it.

81. Socrates was pronounced by the oracle of Delphos to be the wisest man of Greece, which he would put from himself ironically, saying, "there would be nothing in him to verify the oracle, except this; that he was not wise, and knew it; and others were not wise, and knew it not."

82. Socrates, when there was shewed him the book of Heraclitus the obscure, and was asked his opinion of it, answered; "Those things which I understood were excellent, I imagine so were those I understood not; but they require a diver of Delos."

83. Bion asked an envious man that was very sad, "what harm had befallen unto him, or what good had befallen unto another man."

84. Stilpo the philosopher, when the people flocked about him, and that one said to him, "The people come wondering about you as if it were to see some strange beast? No (saith he) it is to see a man which Diogenes sought with his lantern at noon-day."

85. A man being very jealous of his wife, inasmuch that which way soever she went, he would be prying at her heels; and she being so grieved therat, in plain terms told him, "that if he did not for the future leave off his proceedings in that nature, she would graft such a pair of horns upon his head, that should hinder him from coming out of any door in the house."

86. A citizen of London passing the streets very hastily, came at last where some stop was made by carts; and some gentlemen talking together, who knew him, where being in some passion that he could not suddenly pass, one of them in this wise spoke unto him; "that others had passed by, and there was room enough, only they could not tell whether their horns were so wide as his."

87. A tinker passing Cheapside with his usual tone, "Have you any work for a tinker?" an apprentice standing at a door opposite to a pillory there set up, called the tinker, with an intent to put a jest upon him, and told him, "that he should do very well if he would stop those two holes in the pillory;" to which the tinker answered, "that if he would but put in his head and ears a while in that pillory, he would bestow both brags and nails upon him to hold him in, and give him his labour into the bargain."

88. A young maid having married an old man, was observed on the day of marriage to be somewhat moody, as if she had eaten a dish of chums, which one of her bridemen observing, bid her be cheary; and told her moreover, "that an old horse would hold out as long, and as well as a young one, in travel." To which she answered, striking down her belly with her hand, "But not in this road, Sir."

89. There was in Oxford a cowardly fellow that was a very good archer; he was abused grossly by another, and moaned himself to Sir Walter Raleigh, then a scholar, and asked his advice, what he should do to repair the wrong had been offered him; Raleigh answered, "Why, challenge him at a match of shooting."

90. Whitehead, a grave divine, was much esteemed by queen Elizabeth, but not preferred, because he was against the government of bishops; he was of a blunt stoical nature: he came one day to the queen, and the queen happened to say to him, "I like thee the better, Whitehead, because thou livest unmarried." He answered, "In troth, madam, I like you the worse for the same cause."

91. Doctor Laud said, "that some hypocrites, and seeming mortified men, that held down their heads like bulrushes, were like the little images that they place in the very bowing of the vaults of churches, that look as if they held up the church, but are but puppets."



92. A nobleman of this nation, famously known for his mad tricks, on a time having taken physick, which he perceiving that it began well to work, called up his man to go for a chirurgeon presently, and to bring his instruments with him. The chirurgeon comes in all speed; to whom my lord related, that he found himself much addicted to women, and therefore it was his will, that the cause of it might be taken away, and therefore commanded him forthwith to prepare his instruments ready for to geld him: so the chirurgeon forthwith prepares accordingly, and my lord told him that he would not see it done, and therefore that he should do his work the back way: so, both parties being contented, my lord makes ready, and holds up his a---; and when he perceives the chirurgeon very near him, he lets fly full in his face; which made the chirurgeon step back, but coming presently on again; "Hold, hold, faith my lord, I will better consider of it, for I see the retentive faculty is very weak at the approach of such keen instruments."

93. There was a cursed page that his master whipt naked, and when he had been whipt, would not put on his cloaths: and when his master bad him, said, "Take them you, for they are the hangman's fees."

94. There was a lady of the west country, that gave great entertainment at her house to most of the gallant gentlemen thereabouts, and amongst others Sir Walter Raleigh was one. This lady, though otherwise a stately dame, was a notable good housewife; and in the morning betimes she called to one of her maids that looked to the swine, and asked, "Are the pigs served?" Sir Walter Raleigh's chamber was full by the lady's, so as he heard her: a little before dinner, the lady came down in great state into the great chamber, which was full of gentlemen; and as soon as Sir Walter Raleigh set eye upon her, "Madam, faith she, 'are the pigs served?'" The lady answered, "You know best whether you have had your breakfast."

95. There were fishermen drawing the river at Chelsey: Mr. Bacon came thither by chance in the afternoon, and offered to buy their draught: they were willing. He asked them what they would take? They asked Thirty shillings. Mr. Bacon offered them ten. They refused it. Why then, faith Mr. Bacon, I will be only a looker on. They drew, and caught nothing. Saith Mr. Bacon, Are not you mad fellows now, that might have had an angel in your purse, to have made merry withal, and to have warmed you thoroughly, and now you must go home with nothing. Ay but, faith the fishermen, we had hope then to make a better gain of it. Saith Mr. Bacon, "Well, my master, then I will tell you, hope is a good breakfast, but it is a bad supper."

96. A lady walking with Mr. Bacon in Gray's Inn walks, asked him, Whose that piece of ground lying next under the walls was? He answered, Thine. Then she asked him, If those fields beyond the walks were theirs too? He answered, "Yes, Madam, those are ours, as you are ours, to look on, and no more."

97. His lordship, when he was newly made lord Keeper, was in Gray's Inn walks with Sir Walter Raleigh; one came and told him, that the earl of Exeter was above. He continued upon occasion still walking a good while. At last when he came up, my lord of Exeter met him, and said; My lord, I have made a great venture, to come up so high stairs, being a gouty man. His lordship answered; "Pardon me, my lord, I have made the greatest venture of all; for I have ventured upon your patience."

98. When Sir Francis Bacon was made the king's attorney, Sir Edward Coke was put up from being lord Chief Justice of the common pleas, to be lord Chief Justice of the king's bench; which is a place of greater honour, but of less profit; and withal was made privy counsellor. After a few days, the lord Coke meeting with the king's attorney, said unto him; Mr. Attorney, this is all you doing: It is you that have made this stir. Mr. Attorney answered; "Ah! my lord, your lordship all this while hath grown in breadth; you must needs now grow in height, or else you would be a monster."

99. One day queen Elizabeth told Mr. Bacon, that my lord of Essex, after great protestation of penitence and affection, fell in the end but upon the suit of



of renewing of his farm of sweet wines. He answered; "I read that in nature, there be two kinds of motions or appetites in sympathy; the one as of iron to the adamant, for perfection; the other as of the vine to the stake, for sustenance; that her majesty was the one, and his suit the other."

100. Mr. Bacon, after he had been vehement in parliament against depopulation and inclosures; and that soon after the queen told in, that she had referred the hearing of Mr. Mill's cause, to certain counsellors and judges; and asked him how he liked of it? answered; "Oh, madam! my mind is known; I am against all inclosures, and especially against inclosed justice."

101. When Sir Nicholas Bacon the lord Keeper lived, every room in Gorhambury was served with a pipe of water from the ponds, distant about a mile off. In the life-time of Mr. Anthony Bacon, the water ceased. After whose death, his lordship coming to the inheritance, could not recover the water without infinite charge: when he was lord chancellor, he built Verulam house, close by the pond-yard, for a place of privacy when he was called upon to dispatch any urgent business. And being asked, why he built that house there; his lordship answered, "that since he could not carry the water to his house, he would carry his house to the water."

102. When my lord president of the council came first to be lord treasurer, he complained to my lord chancellor of the troublesome of the place, for that the exchequer was so empty; the lord chancellor answered; "My lord, be of good cheer, for now you shall see the bottom of your business at the first."

103. When his lordship was newly advanced to the great seal, Gondomar came to visit him. My lord said; that he was to thank God and the king for that honour; but yet, so he might be rid of the burden, he could very willingly forbear the honour: and that he formerly had a desire, and the same continued with him still, to lead a private life. Gondomar answered, that he would tell him a tale of an old rat, that would needs leave the world, and acquainted the young rats, that he would retire into his hole, and spend his days solitarily; and would enjoy no more comfort: and commanded them upon his high displeasure, not to offer to come in unto him. They forbore two or three days; at last, one that was more hardy than the rest, incited some of his fellows to go in with him, and he would venture to see how his father did: for he might be dead. They went in, and found the old rat sitting in the midst of a rich Parmesan cheese. So he applied the fable after his witty manner.

104. Rabelais tells a tale of one that was very fortunate in compounding differences. His son undertook the said course, but could never compound any. Whereupon he came to his father, and asked him; what art he had to reconcile differences? He answered; "he had no other but this; to watch when the two parties were much wearied, and their hearts were too great to seek reconciliation at one another's hands; then to be a means betwixt them, and upon no other terms." After which the son went home, and prospered in the same undertakings.

105. Alonso Cartilio was informed by his steward of the greatness of his expense, being such as he could not hold out therewith. The bishop asked him, wherein it chiefly arose? His steward told him, in the multitude of his servants. The bishop bad him to make him a note of those that were necessary, and those that might be spared. Which he did. And the bishop taking occasion to read it before most of his servants, said to his steward; "Well, let these remain because I have need of them; and these other also because they have need of me."

106. Mr. Marbury the preacher would say, "that God was fain to do with wicked men, as men do with striking jades in a pasture, that cannot take them up, till they get them at a gate. So wicked men will not be taken up till the hour of death."

107. Pope Sixtus the fifth, who was a very poor man's son, and his father's house ill thatched, so that the sun came in, in many places, would sport with his ignobility, and say; "that he was *nato di casa illustre*, son of an illustrious house."

108. When



108. When the king of Spain conquered Portugal, he gave special charge to his lieutenant, that the soldiers should not spoil, lest he should alienate the hearts of the people: the army also suffered much scarcity of victual. Whereupon the Spanish soldiers would afterwards say; "that they had won the king a kingdom on earth, as the kingdom of heaven used to be won; by fasting and abstaining from that which is another man's."

109. They feigned a tale of Sixtus Quintus, whom they called Size-ace, that after his death he went to hell, and the porter of hell said to him; You have some reason to offer yourself to this place, because you were a wicked man; but yet, because you were a pope, I have order not to receive you: you have a place of your own, purgatory, you may go thither. So he went away, and fought about a great while for purgatory, and could find no such place. Upon that he took heart, and went to heaven and knocked; and St. Peter asked, who was there? He said, Sixtus pope. Whereunto St. Peter said, Why do you knock? you have the keys. Sixtus answered, "It is true, but it is so long since they were given, as I doubt the wards of the lock be altered."

110. Charles king of Sweden, a great enemy of the Jesuits, when he took any of their colleges, he would hang the old Jesuits, and put the young to his mines, saying; "that since they wrought so hard above ground, he would try how they could work under ground."

111. In chancery, at one time when the counsel of the parties set forth the boundaries of the land in question, by the plot; and the counsel of one part said, We lie on this side, my lord; and the counsel of the other part said, And we lie on this side: the lord chancellor Hatton stood up and said; "If you lye on both sides, whom will you have me to believe?"

112. Sir Edward Coke was wont to say, when a great man came to dinner to him, and gave him no knowledge of his coming; "Sir, since you sent me no word of your coming, you must dine with me; but if I had known of it in due time, I would have dined with you."

113. Pope Julius the third, when he was made pope, gave his hat unto a youth, a favourite of his, with great scandal. Whereupon, at one time, a cardinal that might be free with him, said modestly to him; What did your holiness see in that young man, to make him cardinal? Julius answered, "What did you see in me to make me pope?"

114. The same Julius, upon like occasion of speech, Why he should bear so great affection to the same young man? would say; "that he found by astrology, that it was the youth's destiny to be a great prelate; which was impossible except himself were pope. And therefore that he did raise him, as the driver on of his own fortune."

115. Sir Thomas More had only daughters at the first, and his wife did ever pray for a boy. At last she had a boy; which being come to man's estate, proved but simple. Sir Thomas said to his wife, "Thou prayedst so long for a boy, that he will be a boy as long as he lives."

116. Sir Fulk Grevil, afterwards lord Brook, in parliament, when the house of commons, in a great business, stood much upon precedents, said unto them; "Why do you stand so much upon precedents? The times hereafter will be good or bad. If good, precedents will do no harm; if bad, power will make a way where it finds none."

117. Sir Thomas More, on the day that he was beheaded, had a barber sent to him, because his hair was long; which was thought would make him more commiserated with the people. The barber came to him, and asked him, Whether he would be pleased to be trimmed? "In good faith, honest fellow (saith Sir Thomas) the king and I have a suit for my head; and till the title be cleared, I will do no cost upon it."

118. Stephen Gardiner bishop of Winchester, a great champion of the popish religion, was wont to say of the protestants who ground upon the Scripture; "that they were like posts, that bring truth in their letters, and lyes in their mouths."

119. The former Sir Thomas More had sent him by a suitor in chancery, two Vol. I. 6 B silver



silver flagons. When they were presented by the gentleman's servant, he said to one of his men, "Have him to the cellar, and let him have of my best wine;" and, turning to the servant, said; "Tell thy master, if he like it, let him not spare it."

120. Michael Angelo the famous painter, painting in the pope's chapel the portraiture of hell and damned souls, made one of the damned souls so like a cardinal that was his enemy, as every body at first sight knew it. Whereupon the cardinal complained to pope Clement, humbly praying it might be defaced. The pope said to him; "Why, you know very well, I have power to deliver a soul out of purgatory, but not out of hell."

121. There was an agent here for the Dutch, called Carroon; and when he used to move the queen for farther succours, and more men, my lord Henry Howard would say; "that he agreed well with the name of Charon, ferryman of hell; for he came still for more men, to increase *regnum umbrarum*."

122. They were wont to call referring to the masters in chancery, committing. My lord keeper Egerton, when he was master of the rolls, was wont to ask, "what the cause had done that it should be committed."

123. They feigned a tale, principally against doctors reports in the chancery, that Sir Nicolas Bacon, when he came to heaven gate, was opposed, touching an unjust decree which had been made in the chancery. Sir Nicolas desired to see the order, whereupon the decree was drawn up; and finding it to begin *Veneris, etc.* "Why (saith he) I was then sitting in the star-chamber; this concerns the master of the rolls, let him answer it." Soon after came the master of the rolls, Cordal, who died indeed a small time after Sir Nicolas Bacon; and he was likewise stayed upon it: and looking into the order, he found, that upon the reading of a certificate of Doctor Gibson, it was ordered that his report should be decreed. And so he put it upon Dr. Gibson, and there it stuck.

124. Sir Nicolas Bacon, when a certain nimble-witted counsellor at the bar, who was forward to speak, did interrupt him often, said unto him; "There's a great difference betwixt you and me: a pain to me to speak, and a pain to you to hold your peace."

125. The same Sir Nicolas Bacon, upon bills exhibited to discover where lands lay, upon proof that they had a certain quantity of land, but could not set it forth, was wont to say; "And if you cannot find your land in the country, how will you have me find it in the chancery?"

126. Mr. Howland, in conference with a young student, arguing a case, happened to say, I would ask you but this question. The student presently interrupted him, to give him an answer. Whereunto Mr. Howland gravely said; "Nay, though I ask you a question, yet I did not mean you should answer me, I mean to answer myself."

127. Pope Adrian the sixth was talking with the duke of Selsa, that Pasquill gave great scandal, and that he would have him thrown into the river: but Selsa answered; "Do it not, holy father, for then he will turn frog; and whereas now he chants but by day, he will then chant both by day and by night."

128. There was a gentleman in Italy that wrote to a great friend of his, whom the pope had newly advanced to be cardinal; that he was very glad of his advancement, for the cardinal's own sake; but he was sorry that himself had lost a good friend.

129. There was a king of Hungary took a bishop in battle, and kept him prisoner: whereupon the pope writ a monitory to him, for that he had broken the privilege of holy church, and taken his son. The king sent an embassy to him, and sent withal the armour wherein the bishop was taken, and this only in writing; *Vide num haec sit vestis filii tui*: "Know now whether this be thy son's coat."

130. Sir Amyas Pawlet, when he saw too much haste made in any matter, was wont to say; "Stay a while, that we may make an end the sooner."

131. A master of the requests to queen Elizabeth had divers times moved for audience, and been put off. At last he came to the queen in a progress, and had on a new pair of boots. The queen, who loved not the smell of new leather,



ther, said to him; "Fye, flogen, thy new boots stink. Madam," said he, "it is not my new boots that stink; but it is the stale bills that I have kept so long."

132. At an act of the commencement, the answerer gave for his question, that an aristocracy was better than a monarchy. The replyer, who was a disolute man, did tax him that being a private bred man, he would give a question of state. The answerer said, that the replyer did much wrong the privilege of scholars, who would be much straitened if they should give questions of nothing, but such things wherein they are practised; and added, "We have heard yourself dispute of virtue, which no man will say you put much in practice."

133. Queen Isabella of Spain used to say, "Whosoever hath a good presence, and a good fashion, carries continual letters of recommendation."

134. Alonso of Aragon was wont to say in commendation of age, "that age appeared to be best in four things: old wood best to burn; old wine to drink; old friends to trust; and old authors to read."

135. It was said of Augustus, and afterward the like was said of Septimius Severus; both which did infinite mischief in their beginnings, and infinite good toward their ends; "that they should either have never been born or never died."

136. Constantine the Great, in a kind of envy, himself being a great builder, as Trajan likewise was, would call Trajan *Parietaria*, wall-flower, because his name was upon so many walls.

137. Alonso of Aragon was wont to say of himself, "that he was a great necromancer, for that he used to ask counsel of the dead;" meaning of books.

138. Ethelwold, bishop of Winchester, in a famine, sold all the rich vessels and ornaments of the church, to relieve the poor with bread; and said, "there was no reason that the dead temples of God should be sumptuously furnished, and the living temples suffer penury."

139. Many men, especially such as affect gravity, have a manner after other mens speech to shake their heads. A great officer of this land would say, "it was as men shake a bottle, to see if there were any wit in their heads or no?"

140. After a great fight, there came to the camp of Conalvo the great captain, a gentleman, proudly horsed and armed. Diego de Mendoza asked the great captain, who is this? Who answered; "It is saint Ermin, who never appears but after the storm."

141. There was one that died greatly in debt: when it was reported in some company, where divers of his creditors casually were, that he was dead, one began to say; Well, if he be gone, then he hath carried five hundred ducats of mine with him into the other world; and another said, And two hundred of mine; and a third spake of great sums of his. Whereupon one that was amongst them said; "I perceive now, that though a man cannot carry any of his own with him into the next world, yet he may carry away that which is another man's."

142. Francis Carvajal, that was the great captain of the rebels of Peru, had often given the chase to Diego Centeno, a principal commander of the emperor's party: he was afterwards taken by the emperor's lieutenant Gasca, and committed to the custody of Diego Centeno, who used him with all possible courtesy; inasmuch as Carvajal asked him; I pray, sir, who are you that use me with this courtesy? Centeno said, Do not you know Diego Centeno? Carvajal answered, "Truly, sir, I have been so used to see your back, as I knew not your face."

143. There was a merchant died that was very far in debt, his goods and household-stuff were set forth to sale. A stranger would needs buy a pillow there, saying; "This pillow sure is good to sleep upon, since he could sleep that owed so many debts."

144. A lover met his lady in a close chair, she thinking to have gone unknown, he came and spake to her: she asked him, How did you know me? He said, "Because my wounds bleed afresh;" alluding to the common tradition, that the wounds of a body slain will bleed afresh upon the approach of the murderer.



145. A gentleman brought musick to his lady's window. She hated him, and had warned him often away; and when he would not desist, she threw stones at him: whereupon a gentleman said unto him that was in his company; "What greater honour can you have to your musick, than that stones come about you, as they did to Orpheus?"

146. Coranus the Spaniard, at a table at dinner, fell into an extolling his own father, saying; if he could have wished of God, he could not have chosen amongst men a better father. Sir Henry Savil said, "What not Abraham?" Now Coranus was doubted to descend of a race of Jews.

147. Bresquet, jester to Francis the first of France, did keep a calendar of fools, wherewith he did use to make the king sport; telling him ever the reason, why he put any one into his calendar. When Charles the fifth, emperor, upon confidence of the noble nature of Francis, passed through France, for the appeasing of the rebellion of Gaunt, Bresquet put him into his calendar. The king asked him the cause. He answered; "Because you having suffered at the hands of Charles the greatest bitterness that ever prince did from another, nevertheless he would trust his person into your hands. Why, Bresquet," said the king, "what wilt thou say, if thou seest him pass back in as great safety, as if he marched through the midst of Spain?" Saith Bresquet; "Why then I will put him out, and put in you."

148. Archbishop Grindall was wont to say; "that the physicians here in England were not good at the cure of particular diseases; but had only the power of the church, to bind and loose."

149. Cosmus duke of Florence was wont to say of perfidious friends, "that we read, that we ought to forgive our enemies; but we do not read that we ought our friends."

150. A papist being opposed by a protestant, that they had no Scripture for images, answered, "Yes; for you read that the people laid their sick in the streets, that the shadow of saint Peter might come upon them; and that a shadow was an image, and the obscurest of all images."

151. Sir Edward Dyer, a grave and wise gentleman, did much believe in Kelley the alchemist, that he did indeed the work, and did make gold; insomuch that he went into Germany, where Kelley then was, to inform himself fully thereof. After his return, he dined with my lord of Canterbury; where at that time was at the table Dr. Brown the physician. They fell in talk of Kelley. Sir Edward Dyer, turning to the archbishop, said; I do assure your grace, that that I shall tell you is truth; I am an eye-witness thereof; and if I had not seen it, I should not have believed it. I saw Mr. Kelley put of the base metal into the crucible; and after it was set a little upon the fire, and a very small quantity of the medicine put in, and stirred with a stick of wood, it came forth in great proportion, perfect gold; to the touch, to the hammer, and to the test. My lord archbishop said; You had need take heed what you say, Sir Edward Dyer, for here is an infidel at the board. Sir Edward Dyer said again pleasantly; "I should have looked for an infidel sooner in any place than at your grace's table. What say you, Dr. Brown," said the archbishop? Dr. Brown answered, after his blunt and huddling manner; "The gentleman hath spoken enough for me. Why," saith the archbishop, "what hath he said?" "Marry," saith Dr. Brown, "he said, he would not have believed it, except he had seen it; and no more will I."

152. Doctor Johnson said, that in sickness there were three things that were material; the physician, the disease, and the patient: and if any two of these joined, then they get the victory; for, *Ne Hercules quidem contra duos*. If the physician and the patient join, then down goes the disease; for then the patient recovers: if the physician and the disease join, that is a strong disease; and the physician mistaking the cure, then down goes the patient: if the patient and the disease join, then down goes the physician; for he is discredited.

153. Mr. Bettenham said; that virtuous men were like some herbs and spices, that give not out their sweet smell, till they be broken or crushed.

154. There was a painter became a physician; whereupon one said to him; "You



"You have done well; for before the faults of your work were seen; but now they are unseen."

155. There was a gentleman that came to the Tilt all in orange-tawny, and ran very ill. The next day he came again all in green, and ran worse. There was one of the lookers on asked another; "What is the reason that this gentleman 'changeth his colours?" The other answered, "Sure, because it may be reported, that the gentleman in the green ran worse than the gentleman in the 'orange-tawny."

156. Zelim was the first of the Ottomans that did shave his beard, whereas his predecessors wore it long. One of his bathaws asked him, Why he altered the custom of his predecessors? He answered, "Because you bathaws may not lead me by the beard, as you did them."

157. *Aeneas Sylvius*, that was pope Pius Secundus, was wont to say; That the former popes did wisely to set the lawyers a work to debate, whether the donation of Constantine the Great to Sylvester, of St. Peter's patrimony, were good or valid in law or no? the better to skip over the matter in fact, whether there was ever any such thing at all or no.

158. The lord bishop Andrews was asked at the first coming over of the archbishop of Spalato, whether he were a protestant or no? He answered; "Truly I know not; but I think he is a detestant;" that was, of most of the opinions of Rome.

159. It was said amongst some of the grave prelates of the council of Trent, in which the school-divines bare the sway; that the school-men were like the astronomers, who to save the phenomena, framed to their conceit eccentric, and epicycles, and a wonderful engine of orbs; though no such things were: so they, to save the practice of the church, had devised a great number of strange positions.

160. *Aeneas Sylvius* would say, that the Christian faith and law, though it had not been confirmed by miracles, yet was worthy to be received for the honesty thereof.

161. Mr. Bacon would say, that it was in his business, as it is frequently in the ways: that the next way is commonly the foulest; and that if a man will go the fairest way, he must go somewhat about.

162. Mr. Bettenham, reader of Gray's Inn, used to say, that riches were like muck; when it lay in a heap it gave but a stench and ill odour; but when it was spread upon the ground, then it was cause of much fruit.

163. Cicero married his daughter to Dolabella, that held Caesar's party: Pompey had married Julia, that was Caesar's daughter. After, when Caesar and Pompey took arms one against the other, and Pompey had passed the seas, and Caesar possessed Italy, Cicero stayed somewhat long in Italy, but at last sailed over to join with Pompey; who when he came to him, Pompey said, You are welcome, but where left you your son-in-law? Cicero answered, "With your father-in-law."

164. Vespasian, and Titus his eldest son, were both absent from Rome: when the empire was cast upon Vespasian; Domitian his younger son was at Rome, who took upon him the affairs; and being of a turbulent spirit, made many changes; and displaced divers officers and governors of provinces, sending them successors. So when Vespasian returned to Rome, and Domitian came into his presence, Vespasian said to him; "Son, I looked when you would have sent me a successor."

165. Nero loved a beautiful youth, whom he used viciously, and called him wife: there was a senator of Rome that said secretly to his friend, "It was pity Nero's father had not such a wife."

166. Galba succeeded Nero, and his age being despised, there was much licence and confusion in Rome during his empire; whereupon a senator said in full senate; "It were better to live where nothing is lawful, than where all things are lawful."

167. Augustus Caesar did write to Livia, who was over-sensible of some ill words that had been spoken of them both: "Let it not trouble thee, my

Vol. I.

6 C

"Livia,



" Livia, if any man speak ill of us; for we have enough that no man can do ill unto us."

168. Chilon said, that kings, friends, and favourites, were like casting counters; that sometimes stood for one, sometimes for ten, sometimes for an hundred.

169. Theodotus, when he was pressed by a suitor, and denied him; the suitor said, Why, Sir, you promised it. He answered; " I said it, but I did not promise it, if it be unjust."

170. The Romans, when they spake to the people, were wont to style them Ye Romans: when commanders in war spake to their army, they styled them My soldiers. There was a mutiny in Cæsar's army, and somewhat the soldiers would have had, yet they would not declare themselves in it, but only demanded a mission or discharge; though with no intention it should be granted: but, knowing that Cæsar had at that time great need of their service, thought by that means to wrench him to their other desires: whereupon with one cry they asked mission. Cæsar, after silence made, said; " I for my part, ye Romans." This title did actually speak them to be dismissed: which voice they had no sooner heard, but they mutinied again; and would not suffer him to go on with his speech, until he had called them by the name of his Soldiers: and so with that one word he appeased the sedition.

171. Cæsar would say of Sylla, for that he did resign his dictatorship; " Sylla was ignorant of letters, he could not dictate."

172. Seneca said of Cæsar, " that he did quickly shew the sword, but never leave it off."

173. Diogenes begging, as divers philosophers then used, did beg more of a prodigal man, than of the rest which were present. Whereupon one said to him; See your baseness, that when you find a liberal mind, you will take most of him.

" No," said Diogenes, " but I mean to beg of the rest again."

174. Themistocles, when an ambassador from a mean estate did speak great matters; said to him, " Friend, thy words would require a city."

175. They would say of the duke of Guise, Henry; " that he was the greatest usurer in France, for that he had turned all his estate into obligations." Meaning, that he had sold and oppugnered all his patrimony, to give large do-natives to other men.

176. Cæsar Borgia, after long division between him and the lords of Romagna, fell to accord with them. In this accord there was an article, that he should not call them at any time all together in person. The meaning was, that knowing his dangerous nature, if he meant them treason, he might have opportunity to oppress them all together at once. Nevertheless, he used such fine art, and fair carriage, that he won their confidence to meet all together in council at Cinigaglia; where he murdered them all. This act, when it was related unto pope Alexander, his father, by a cardinal, as a thing happy, but very perfidious; the pope said, " It was they that broke their covenant first, in coming all together."

177. Titus Quinctius was in the council of the Achæians, what time they deliberated, whether in the war then to follow, between the Romans and king Antiochus, they should confederate themselves with the Romans, or with king Antiochus? In that council the Ætolians, who incited the Achæians against the Romans, to disabie their forces, gave great words, as if the late victory the Romans had obtained against Philip king of Macedon, had been chiefly by the strength and forces of the Ætolians themselves: and on the other side the ambassador of Antiochus did extol the forces of his master; founding what an innumerable company he brought in his army; and gave the nations strange names; as Elymæans, Caducians, and others. After both their harangues, Titus Quinctius, when he rose up, said; " it was an easy matter to perceive what it was that had joined Antiochus and the Ætolians together; that it appeared to be by the reciprocal lying of each, touching the others forces."

178. Plato was amorous of a young gentleman, whose name was Stella, that studied astronomy, and went oft in the clear nights to look upon the stars. Whereupon



Whereupon Plato wished himself heaven, that he might look upon Stella with a thousand eyes.

179. The Lacedæmonians were besieged by the Athenians in the port of Pyle, which was won, and some slain, and some taken. There was one said to one of them that was taken, by way of scorn; Were they not brave men that lost their lives at the port of Pyle? He answered; "Certainly a Persian arrow is much to be set by, if it can chase out a brave man."

180. Clodius was acquitted by a corrupt jury, that had palpably taken shares of money: before they gave up their verdict, they prayed of the senate a guard, that they might do their consciences, for that Clodius was a very seditious young nobleman. Whereupon all the world gave him for condemned. But acquitted he was. Carulus, the next day seeing some of them that had acquitted him together, said to them; "What made you ask of us a guard? Were you afraid your money should be taken from you?"

181. At the same judgment, Cicero gave in evidence upon oath: and when the jury, which consisted of fifty-seven, had passed against his evidence, one day in the senate Cicero and Clodius being in altercation, Clodius upbraided him, and said; The jury gave you no credit. Cicero answered, "Five and twenty gave me credit; but there were two and thirty that gave you no credit, for they had their money beforehand."

182. Sir Henry Savil was asked by my lord of Essex, his opinion touching poets? He answered my lord; "that he thought them the best writers, next to them that writ prose."

183. Diogenes having seen that the kingdom of Macedon, which before was contemptible and low, began to come aloft when he died, was asked, how he would be buried? He answered; "With my face downward; for within a while the world will be turned upside down, and then I shall lie right."

184. Cato the elder was wont to say; that the Romans were like sheep; a man were better to drive a flock of them, than one of them.

185. When Lycurgus was to reform and alter the state of Sparta; in consultation one advised, that it should be reduced to an absolute popular equality: but Lycurgus said to him; "Sir, begin it in your own house."

186. Bion, that was an atheist, was shewed in a port city, in a temple of Neptune, many tables of pictures, of such as had in tempests made their vows to Neptune, and were saved from shipwreck: and was asked, How say you now? Do you not acknowledge the power of the Gods? But saith he; "Ay, but where are they painted that have been drowned after their vows?"

187. Cicero was at dinner, where there was an ancient lady that spake of her own years, and said; she was but forty years old. One that sat by Cicero, rounded him in the ear, and said; She talks of forty years old; but she is far more, out of question. Cicero answered him again; "I must believe her, for I have heard her say so any time these ten years."

188. There was a soldier that vaunted before Julius Cæsar of the hurts he had received in his face. Julius Cæsar knowing him to be but a coward, told him; "You were best take heed next time you run away, how you look back."

189. There was a suitor to Vespasian, who to lay his suit fairer, said it was for his brother; whereas indeed it was for a piece of money. Some about Vespasian told the emperor, to cross him: that the party his servant spoke for, was not his brother; but that he did it upon a bargain. Vespasian sent for the party interested, and asked him; Whether his mean employed by him was his brother or no? He durst not tell untruth to the emperor, and confessed he was not his brother. Whereupon the emperor said, This do, fetch me the money, and you shall have your suit dispatched. Which he did. The courtier which was the mean, solicited Vespasian soon after about his suit: "Why (saith Vespasian) I gave it last day to a brother of mine."

190. Vespasian asked of Apollonius, what was the cause of Nero's ruin? Who answered, "Nero could tune the harp well, but in government he did always wind up the strings too high, or let them down too low."

191. Dionysius



191. Dionysius the tyrant, after he was deposed and brought to Corinth, kept a school. Many used to visit him; and amongst others, one when he came in, opened his mantle and shook his clothes; thinking to give Dionysius a gentle scorn; because it was the manner to do so for them that came in to see him while he was tyrant. But Dionysius said to him; "I prithee do so, rather when thou goest out, that we may see thou stealest nothing away."

192. Diogenes, one terrible frosty morning, came into the market-place, and stood naked, shaking, to shew his tolerance. Many of the people came about him pitying him: Plato passing by, and knowing he did it to be seen, said to the people as he went by; "If you pity him indeed, let him alone to himself."

193. Aristippus was earnest suitor to Dionysius for some grant, who would give no ear to his suit. Aristippus fell at his feet, and then Dionysius granted it. One that stood by said afterwards to Aristippus; "You a philosopher, and be so base as to throw yourself at the tyrant's feet to get a suit. Aristippus answered, "The fault is not mine, but the fault is in Dionysius, that carries his ears in his feet."

194. Solon, when he wept for his son's death, and one said to him, Weeping will not help; answered, "Alas, therefore I weep, because weeping will not help."

195. The same Solon being asked; whether he had given the Athenians the best laws? answered, "The best of those that they would have received."

196. One said to Aristippus; "Tis a strange thing, why men should rather give to the poor, than to philosophers. He answered, "Because they think themselves may sooner come to be poor, than to be philosophers."

197. Trajan would say of the vain jealousy of princes, that seek to make away those that aspire to their succession; "that there was never king that did put to death his successor."

198. When it was represented to Alexander, to the advantage of Antipater, who was a stern and imperious man, that he only of all his lieutenants wore no purple, but kept the Macedonian habit of black; Alexander said, "Yea, but Antipater is all purple within."

199. Alexander used to say of his two friends, Craterus, and Hephestion; that Hephestion loved Alexander, and Craterus loved the king.

200. It fell out so, that as Livia went abroad in Rome, there met her naked young men that were sporting in the streets, which Augustus went about severely to punish in them: but Livia spake for them, and said; "It was no more to chaste women, than so many statues."

201. Philip of Macedon was wished to banish one for speaking ill of him. But Philip answered; "Better he speak where we are both known, than where we are both unknown."

202. Lucullus entertained Pompey in one of his magnificent houses: Pompey said, This is a marvellous fair and stately house for the summer: but methinks it should be very cold for winter. Lucullus answered, "Do you not think me as wise as divers fowls are, to change my habitation in the winter season."

203. Plato entertained some of his friends at a dinner, and had in the chamber a bed, or couch, neatly and costly furnished. Diogenes came in, and got up upon the bed, and trampled it, saying, "I trample upon the pride of Plato. Plato mildly answered, "But with greater pride, Diogenes."

204. Pompey being commissioner for sending grain to Rome in time of dearth, when he came to the sea, found it very tempestuous and dangerous; inasmuch as those about him advised him by no means to embark; but Pompey said, "It is of necessity that I go, not that I live."

205. Demosthenes was upbraided by Æschines, that his speeches did smell of the lamp. But Demosthenes said, "Indeed there is a great deal of difference between that which you and I do by lamp-light."

206. Demades the orator, in his age was talkative, and would eat hard: Antipater would say of him, that he was like a sacrifice, that nothing was left of it but the tongue and the paunch.



207. Themistocles, after he was banished, and had wrought himself into great favour afterwards, so that he was honoured and sumptuously served, seeing his present glory, said unto one of his friends, "If I had not been undone, I had been undone."

208. Philo Judæus saith, that the sense is like the sun; for the sun seals up the globe of heaven, and opens the globe of earth: so the sense doth obscure heavenly things, and reveals earthly things.

209. Alexander, after the battle of Granicum, had very great offers made him by Darius; consulting with his captains concerning them, Parmenio said, "Sure I would accept of these offers, if I were as Alexander." Alexander answered, "So would I, if I were as Parmenio."

210. Alexander was wont to say, he knew himself to be mortal, chiefly by two things; sleep, and lust.

211. Augustus Cæsar would say, that he wondered that Alexander feared he should want work, having no more worlds to conquer: as if it were not as hard a matter to keep, as to conquer.

212. Antigonus, when it was told him that the enemy had such volleys of arrows that they did hide the sun, said, "That falls out well, for it is hot weather, and so we shall fight in the shade."

213. Cato the elder, being aged, buried his wife, and married a young woman. His son came to him, and said; Sir, what have I offended, that you have brought a step-mother into your house? The old man answered, "Nay, quite contrary, son; thou pleasest me so well, as I would be glad to have more such."

214. Crassus the orator had a fish which the Romans called *Muraena*, that he made very tame and fond of him; the fish died, and Crassus wept for it. One day falling in contention with Domitius in the senate, Domitius said, Foolish Crassus, you wept for your *Muraena*. Crassus replied, "That is more than you did for both your wives."

215. Philip, Alexander's father, gave sentence against a prisoner what time he was drowsy, and seemed to give small attention. The prisoner after sentence was pronounced, said, I appeal. The king somewhat stirred, said; To whom do you appeal? The prisoner answered, "From Philip when he gave no ear, to Philip when he shall give ear."

216. There was a philosopher that disputed with the emperor Adrian, and did it but weakly. One of his friends that stood by, afterwards said unto him: Methinks you were not like yourself last day, in argument with the emperor; I could have answered better myself. "Why," said the philosopher, "would you have me contend with him that commands thirty legions."

217. When Alexander passed into Asia, he gave large donatives to his captains, and other principal men of virtue; inso much as Parmenio asked him, Sir, what do you keep for yourself? He answered, "Hope."

218. Vespasian set a tribute upon urine, Titus his son emboldened himself to speak to his father of it: and represented it as a thing indign and sordid. Vespasian said nothing for the time; but a while after, when it was forgotten, sent for a piece of silver out of the tribute-money; and called to his son, bidding him to smell to it; and asked him, whether he found any offence? Who said, No: "Why so?" saith Vespasian again; "yet this comes out of urine."

219. Nerva the emperor succeeded Domitian, who had been tyrannical; and in his time many noble houses were overthrown by false accusations; the instruments whereof were chiefly Marcellus, and Regulus. The emperor Nerva one night supped privately with some six or seven: amongst whom there was one that was a dangerous man; and began to take the like courses as Marcellus and Regulus had done. The emperor fell into discourse of the injustice and tyranny of the former time; and by name, of the two accusers; and said, What should we do with them, if we had them now? One of them that was at supper, and was a free-spoken senator, said; "Marry, they should sup with us."

220. There was one that found a great mass of money digging under ground in his grandfather's house; and being somewhat doubtful of the case, signified  
Vol. I.



it to the emperor, that he had found such treasure. The emperor made a rescript thus; "Use it." He writ back again, that the sum was greater than his estate or condition could use. The emperor writ a new rescript, thus: "Abuse it."

221. Julius Cæsar, as he passed by, was by acclamation of some that stood in the way, termed king, to try how the people would take it. The people shewed great murmur and distaste at it. Cæsar, finding where the wind stood, slighted it, and said; "I am not king, but Cæsar;" as if they had mistaken his name. For *Rex* was a surname amongst the Romans, as King is with us.

222. When Croesus, for his glory, shewed Solon his great treasures of gold, Solon said to him; "If another king come that hath better iron than you, he will be master of all this gold."

223. Aristippus being reprehended of luxury, by one that was not rich, for that he gave six crowns for a small fish, answered; Why, what would you have given? The other said, Some twelve pence. Aristippus said again; "And six crowns is no more with me."

224. Plato reprehended severely a young man for entering into a dissolute house. The young man said to him; Why do you reprehend so sharply for so small a matter? Plato replied, "But custom is no small matter."

225. Archidamus, king of Lacedæmon, having received from Philip king of Macedon (after Philip had won the victory of Cheronea, upon the Athenians) proud letters, writ back to him; "that if he measured his own shadow, he would find it no longer than it was before his victory."

226. Pyrrhus, when his friends congratulated to him his victory over the Romans, under the conduct of Fabricius, but with great slaughter of his own side, said to them again; "Yes, but if we have such another victory, we are undone."

227. Plato was wont to say of his master Socrates, that he was like the apothecaries gally-pots; that had on the out-side apes, and owls, and satyrs; but within, precious drugs.

228. Alexander sent to Phocion a great present of money. Phocion said to the messenger; Why doth the king send to me, and to none else? The messenger answered; Because he takes you to be the only good man in Athens. Phocion replied; "If he think so, pray let him suffer me to be so still."

229. At a banquet, where those that were called the seven wise men of Greece, were invited by the ambassador of a barbarous king; the ambassador related, that there was a neighbour mightier than his master, picked quarrels with him, by making impossible demands; otherwise threatening war; and now at that present had demanded of him, to drink up the sea. Whereunto one of the wise men said, I would have him undertake it. Why, saith the ambassador, how shall he come off? "Thus (saith the wise men;) let that king first stop the rivers which run into the sea, which are no part of the bargain, and then your master will perform it."

230. At the same banquet, the ambassador desired the seven, and some other wise men that were at the banquet, to deliver every one of them some sentence or parable, that he might report to his king the wisdom of Grecia, which they did; only one was silent; which the ambassador perceiving, said to him; Sir, let it not displease you; why do not you say somewhat that I may report? He answered, "Report to your lord, that there are of the Grecians that can hold their peace."

231. The Lacedæmonians had in custom to speak very short, which being an empire, they might do at pleasure: but after their defeat at Leuctra, in an assembly of the Grecians, they made a long invective against Epaninondas; who stood up, and said no more than this; "I am glad we have brought you to speak long."

232. Fabius Maximus being resolved to draw the war in length, still waited upon Hannibal's progress to curb him; and for that purpose he encamped upon the high ground: but Terentius his colleague fought with Hannibal, and was in great peril of overthrow; but then Fabius came down from the high grounds, and got the day. Whereupon Hannibal said; "that he did ever think that that

same



"same cloud that changed upon the hills, would at one time or other give a tempest."

233. Hanno the Carthaginian was sent commissioner by the state, after the second Carthaginian war, to supplicate for peace, and in the end obtained it: yet one of the sharper senators said, You have often broken with us the peaces whereunto you have been sworn; I pray, by what god will you swear? Hanno answered; "By the same gods that have punished the former perjury so severely."

234. Cæsar, when he first possessed Rome, Pompey being fled, offered to enter the sacred treasury to take the moneys that were there stored; and Metellus, tribune of the people, did forbid him: and when Metellus was violent in it, and would not desist, Cæsar turned to him, and said; "Presume no farther, or I will lay you dead." And when Metellus was with those words somewhat astonished, Cæsar added; "Young man, it had been easier for me to do this, than to speak it."

235. Caius Marius was general of the Romans against the Cimbers, who came with such a sea of people upon Italy. In the fight there was a band of the Caudurians of a thousand, that did notable service; whereupon, after the fight, Marius did denison them all for citizens of Rome, though there was no law to warrant it. One of his friends did present it unto him, that he had transgressed the law, because that privilege was not to be granted, but by the people. Whereunto Marius answered; "That for the noise of arms he could not hear the laws."

236. Pompey did consummate the war against Sertorius, when Metellus had brought the enemy somewhat low. He did also consummate the war against the fugitives, whom Crassus had before defeated in a great battle. So when Lucullus had had great and glorious victories against Mithridates and Tigranes; yet Pompey, by means his friends made, was sent to put an end to that war. Whereupon Lucullus taking indignation, as a disgrace offered to himself, said; "that Pompey was a carrion crow; when others had stricken down the bodies, then Pompey came and preyed upon them."

237. Antisthenes being asked of one what learning was most necessary for man's life? answered; "To unlearn that which is nought."

238. Alexander visited Diogenes in his tub; and when he asked him, what he would desire of him? Diogenes answered; "That you would stand a little aside, that the sun may come to me."

239. The same Diogenes, when mice came about him as he was eating, said; "I see, that even Diogenes nourisheth parasites."

240. Hiero visited by Pythagoras, asked him, of what condition he was? Pythagoras answered; Sir, I know you have been at the Olympian games. Yes, saith Hiero. "Thither (saith Pythagoras) come some to win the prizes. Some come to sell their merchandize, because it is a kind of mart of all Greece. Some come to meet their friends, and to make merry; because of the great confluence of all sorts. Others come only to look on. I am one of them that come to look on." Meaning it, of philosophy, and the contemplative life.

241. Heraclitus the obscure said; "The dry light is the best soul;" meaning, when the faculties intellectual are in vigour, not drenched, or, as it were, blooded by the affections.

242. One of the philosophers was asked; what a wife man differed from a fool? He answered, "Send them both naked to those that know them not, and you shall perceive."

243. There was a law made by the Romans against the bribery and extortion of the governors of provinces. Cicero saith in a speech of his to the people, that he thought the provinces would petition to the state of Rome to have that law repealed. "For (saith he) before the governors did bribe and extort as much as was sufficient for themselves: but now they bribe and extort as much as may be enough, not only for themselves, but for the judges, and jurors, and magistrates."

244. Aristippus sailing in a tempest, shewed signs of fear. One of the seamen said to him, in an insulting manner: We that are plebeians are not troubled; you



you that are a philosopher, are afraid. Aristippus answered; "That there is not the like wager upon it, for you to perish and for me."

245. There was an orator that defended a cause of Aristippus, and prevailed. Afterwards he asked Aristippus; Now, in your distress, what did Socrates do you good? Aristippus answered; "Thus, in making that which you said of me to be true."

246. There was an Epicurean vaunted, that divers of other sects of philosophers did after turn Epicureans; but there never was any Epicureans that turned to any other sect. Whereupon a philosopher that was of another sect, said; "the reason was plain, for that cocks may be made capons, but capons could never be made cocks."

247. Chilon would say, "that gold was tried with the touchstone, and men with gold."

248. Simonides being asked of Hiero, what he thought of God? asked a seven-night's time to consider of it; and at the seven-night's end, he asked a fortnight's time; at the fortnight's end, a month. At which Hiero marvelling, Simonides answered; "that the longer he thought upon the matter, the more difficult he found it."

249. A Spaniard was censuring to a French gentleman the want of devotion amongst the French; in that, whereas in Spain, when the sacrament goes to the sick, any that meets with it, turns back and waits upon it to the house whither it goes; but in France, they only do reverence, and pass by. But the French gentleman answered him, "There is reason for it; for here with us, Christ is secure amongst his friends; but in Spain there be so many Jews and Moranos, that it is not amiss for him to have a convoy."

250. Mr. Popham (afterwards lord chief justice Popham) when he was speaker, and the house of commons had sat long, and done in effect nothing; coming one day to queen Elizabeth, she said to him; Now, Mr. Speaker, what hath passed in the commons' house? He answered, "If it please your majesty, seven weeks."

251. Themistocles in his lower fortune was in love with a young gentleman who scorned him; but when he grew to his greatness, which was soon after, he sought him: Themistocles said; "We are both grown wife, but too late."

252. Bion was sailing, and there fell out a great tempest; and the mariners, that were wicked and dissolute fellows, called upon the gods; but Bion said to them, "Peace, let them not know you are here."

253. The Turks made an expedition into Persia; and because of the straits of the mountains of Armenia, the bashaws consulted which way they should get in. One that heard the debate said, "Here is much ado how you shall get in; but I hear no body take care how you should get out."

254. Philip king of Macedon maintained arguments with a musician in points of his art, somewhat peremptorily; but the musician said to him, "God forbid, Sir, your fortune were so hard, that you should know these things better than myself."

255. Antalcidas, when an Athenian said to him, Ye Spartans are unlearned; said again, "True, for we have learned no evil nor vice of you."

256. Pace, the bitter fool, was not suffered to come at queen Elizabeth, because of his bitter humour. Yet at one time, some persuaded the queen that he should come to her; undertaking for him, that he should keep within compass: so he was brought to her, and the queen said; "Come on, Pace; now we shall hear of our faults." Saith Pace; "I do not use to talk of that that all the town talks of."

257. Bishop Latimer said, in a sermon at court, "that he heard great speech that the king was poor; and many ways were propounded to make him rich; for his part he had thought of one way, which was, that they should help the king to some good office, for all his officers were rich."

258. After the defeat of Cyrus the younger, Falinus was sent by the king to the Grecians (who had for their part rather victory, than otherwise) to command them to yield their arms; which when it was denied, Falinus said to Clearchus; "Well



"Well then, the king lets you know, that if you remove from the place where  
 "you are now encamped, it is war: if you stay, it is truce. What shall I say  
 "you will do?" Clearchus answered, "It pleaseth us, as it pleaseth the king.  
 How is that?" saith Falinus. Saith Clearchus, "If we remove, war: if we  
 "stay, truce:" and so would not disclose his purpose.

259. Alcibiades came to Pericles, and stayed a while ere he was admitted.  
 When he came in, Pericles civilly excused it, and said; "I was studying how  
 "to give mine account." But Alcibiades said to him, "If you will be ruled by  
 "me, study rather how to give no account."

260. Mendoza that was vice-roy of Peru, was wont to say, "that the govern-  
 "ment of Peru was the best place that the king of Spain gave, save that it was  
 "somewhat too near Madrid."

261. When Vespasian passed from Jewry to take upon him the empire, he  
 went by Alexandria, where remained two famous philosophers, Apollonius and  
 Euphrates. The emperor heard the discourse, touching matter of state, in the  
 presence of many. And when he was weary of them, he brake off, and in a  
 secret derision, finding their discourses but speculative, and not to be put in prac-  
 tice, said; "Oh that I might govern wise men, and wise men govern me."

262. Cardinal Ximenes, upon a muster, which was taken against the Moors,  
 was spoken to by a servant of his to stand a little out of the smoke of the har-  
 quebus; but he said again, "That that was his incense."

263. Nero was wont to say of his master Seneca, That his style was like mor-  
 tar without lime.

264. Augustus Cæsar, out of great indignation against his two daughters, and  
 Posthumus Agrippa, his grandchild; whereof the two first were infamous, and  
 the last otherwise unworthy; would say, "that they were not his seed, but some  
 "impostumes that had broken from him."

265. A seaman coming before the judges of the admiralty for admittance into  
 an office of a ship bound for the Indies, was by one of the judges much slighted,  
 as an insufficient person for that office he sought to obtain; the judge telling  
 him, that he believed he could not say the points of his compass. The sea-  
 man answered; that he could say them, under favour, better than he could say  
 his *Pater-noster*. The judge replied; that he would wager twenty shillings with  
 him upon that. The seaman taking him up, it came to trial: and the seaman  
 began, and said all the points of his compass very exactly: the judge likewise said  
 his *Pater-noster*: and when he had finished it, he required the wager according  
 to agreement; because the seaman was to say his compass better than he his  
*Pater-noster*, which he had not performed. "Nay, I pray, Sir, hold (quoth  
 "the seaman) the wager is not finished; for I have but half done:" and so he  
 immediately said his compass backward very exactly; which the judge failing of  
 in his *Pater-noster*, the seaman carried away the prize.

266. There was a conspiracy against the emperor Claudius by Scribonianus,  
 examined in the senate; where Claudius sat in his chair, and one of his freed ser-  
 vants stood at the back of his chair. In the examination, that freed servant, who  
 had much power with Claudius, very saucily, had almost all the words: and  
 amongst other things, he asked in scorn one of the examiners, who was like-  
 wise a freed servant of Scribonianus; "I pray, Sir, if Scribonianus had been  
 "emperor, what would you have done?" He answered, "I would have stood  
 "behind his chair and held my peace."

267. One was saying, that his great grand-father, and grand-father, and father,  
 died at sea; said another that heard him; "And I were as you, I would never  
 "come at sea. Why (saith he) where did your great grand-father, and  
 "grand-father, and father die?" He answered; "Where but in their beds?"  
 He answered; "And I were as you, I would never come in bed."

268. There was a dispute, whether great heads or little heads had the better  
 wit? And one said, "It must needs be the little; for that it is a maxim, *Omne*  
*"majus continet in se minus."*

269. Sir Thomas More, when the counsel of the party pressed him for  
 a longer day to perform the decree, said; "Take saint Barnaby's day, which  
 Vol. I. 6 E is



"is the longest day in the year." Now saint Barnaby's day was within few days following.

270. One of the fathers saith, "that there is but this difference between the death of old men and young men; that old men go to death, and death comes, to young men."

271. Cassius, after the defeat of Crassus by the Parthians, whose weapons were chiefly arrows, fled to the city of Charra, where he durst not stay any time, doubting to be pursued and besieged; he had with him an astrologer, who said to him, "Sir, I would not have you go hence, while the moon is in the sign of Scorpio." Cassius answered, "I am more afraid of that of Sagittarius."

272. Jason the Thessalian was wont to say, That some things must be done unjustly, that many things may be done justly.

273. Demetrius king of Macedon would at times retire himself from business, and give himself wholly to pleasures. One of those his retirings, giving out that he was sick, his father Antigonus came on the sudden to visit him; and met a fair dainty youth coming out of his chamber. When Antigonus came in, Demetrius said; "Sir, the fever left me right now." Antigonus replied, "I think it was he that I met at the door."

274. Cato Major would say, that wise men learned more by fools, than fools by wise men.

275. When it was said to Anaxagoras; The Athenians have condemned you to die; he said again, "And nature them."

276. Alexander, when his father wished him to run for the prize of the race at the Olympian games (for he was very swift) answered; "he would, if he might run with kings."

277. Antigonus used often to go disguised, and to listen at the tents of his soldiers; and at a time heard some that spoke very ill of him. Whereupon he opened the tent a little, and said to them; "If you would speak ill of me, you should go a little farther off."

278. Aristippus said; that those that studied particular sciences, and neglected philosophy, were like Penelope's woers, that made love to the waiting woman.

279. The embassadors of Asia Minor came to Antonius, after he had imposed upon them a double tax, and said plainly to him; "That if he would have two tributes in one year, he must give them two seed-times, and two harvests."

280. An orator of Athens said to Demosthenes; "The Athenians will kill you if they wax mad." Demosthenes replied, "And they will kill you if they be in good sense."

281. Epictetus used to say; "That one of the vulgar, in any ill that happens to him, blames others; a novice in philosophy blames himself; and a philosopher blames neither the one nor the other."

282. Cæsar, in his book that he made against Cato (which is lost) did write, to shew the force of opinion and reverence of a man that had once obtained a popular reputation; that there were some that found Cato drunk, and were ashamed instead of Cato.

283. There was a nobleman said of a great counsellor, "that he would have made the worst farrier in the world; for he never shod horse, but he cloyed him: for he never commended any man to the king for service, or upon occasion of suit, or otherwise, but that he would come in, in the end, with a *but*; and drive in a nail to his disadvantage."

284. Diogenes called an ill physician, cock. "Why?" saith he. Diogenes answered; "Because when you crow, men use to rise."

285. There was a gentleman fell very sick, and a friend of his said to him; "Surely, you are in danger; I pray send for a physician." But the sick man answered; "It is no matter, for if I die, I will die at leisure."

286. Cato the elder, what time many of the Romans had statues erected in their honour, was asked by one in a kind of wonder, Why he had none? He answered, "He had much rather men should ask and wonder why he had no statue, than why he had a statue."

287. A certain friend of Sir Thomas More's, taking great pains about a book, which



which he intended to publish (being well conceited of his own wit, which no man else thought worthy of commendation) brought it to Sir Thomas More to peruse it, and pass his judgment upon it; which he did: and finding nothing therein worthy the press, he said to him with a grave countenance; "that if it were in verse it would be more worthy." Upon which words, he went immediately and turned it into verse, and then brought it to Sir Thomas again; who looking thereon, said soberly; "Yes, marry, now it is somewhat; for now it is rhyme; whereas before it was neither rhyme nor reason."

288. Sir Henry Wotton used to say, that critics were like brushers of noble-mens clothes.

289. Hannibal said of Fabius Maximus, and of Marcellus, whereof the former waited upon him, that he could make no progress, and the latter had many sharp fights with him; "that he feared Fabius like a tutor, and Marcellus like an enemy."

290. When king Edward the second was amongst his torturers, who hurried him to and fro, that no man should know where he was, they set him down upon a bank: and one time the more to disguise his face, shaved him, and washed him with cold water of a ditch by: the king said; "Well, yet I will have warm water for my beard: and so shed abundance of tears."

291. One of the Seven was wont to say; "that laws were like cobwebs; where the small flies were caught, and the great brake through."

292. Lewis the eleventh of France, having much abated the greatness and power of the peers, nobility, and court of parliament, would say, "that he had brought the crown out of ward."

293. There was a cowardly Spanish soldier, that in a defeat the Moors gave, ran away with the foremost. Afterwards when the army generally fled, this soldier was missing. Whereupon it was said by some, that he was slain. "No sure (saith one) he is alive; for the Moors eat no hares flesh."

294. A gentleman that was punctual of his word, and loved the same in others, when he heard that two persons had agreed upon a meeting about serious affairs, at a certain time and place; and that the one party failed in the performance, or neglected his hour; would usually say of him, "He is a young man then."

295. Anacharis would say, concerning the popular estates of Grecia, that "he wondered how at Athens wise men did propose, and fools dispose."

His lordship, when he had finished this collection of Apophthegms, concluded thus: Come, now all is well: they say, he is not a wise man that will lose his friend for his wit; but he is less a wise man, that will lose his friend for another man's wit.

## A P O P H T H E G M S.

Contained in the original edition in octavo, but omitted in later copies.

1. **W**HEN queen Elizabeth had advanced Raleigh, she was one day playing on the virginals, and my lord of Oxford, and another nobleman stood by. It fell out so, that the ledge before the jacks was taken away, so as the jacks were seen: my lord of Oxford, and the other nobleman smiled, and a little whispered. The queen marked it, and would needs know what the matter was? My lord of Oxford answered; "That they smiled to see, that when jacks went up, heads went down."

22. Sir Thomas More (who was a man, in all his life-time, that had an excellent vein in jesting) at the very instant of his death, having a pretty long beard, after his head was upon the block, lift it up again, and gently drew his beard aside, and said; "This hath not offended the king."

27. Demonax the philosopher, when he died, was asked touching his burial. He answered, "Never take care for burying me, for think will bury me." He that asked him, said again; "Why, would you have your body left to the dogs and ravens to feed upon?" Demonax answered; "Why, what great hurt is it,



"it, if having fought to do good," when I lived, to men; my body do some good to beasts, when I am dead."

30. Phocion, the Athenian (a man of great severity, and no way flexible to the will of the people) one day, when he spake to the people, in one part of his speech, was applauded: whereupon, he turned to one of his friends, and asked; "What have I said amiss?"

34. Bion was wont to say; "That Socrates, of all the lovers of Alcibiades, only held him by the ears."

37. There was a philosopher about Tiberius, that looking into the nature of Caus, said of him; "that he was mire mingled with blood."

42. There was a bishop, that was somewhat a delicate person, and bathed twice a day. A friend of his said to him; "My lord, why do you bathe twice a day?" The bishop answered; "Because I cannot conveniently bathe thrice."

89. When Sir Thomas More was lord chancellor, he did use, at mafs, to sit in the chancel; and his lady in a pew. And because the pew stood out of sight, his gentleman-usher, ever after service, came to the lady's pew, and said; "Madam, my lord is gone." So when the chancellor's place was taken from him, the next time they went to church, Sir Thomas himself came to his lady's pew, and said; "Madam, my lord is gone."

104. A Gracian captain advising the confederates, that were united against the Lacedemonians, touching their enterprize, gave opinion, that they should go directly upon Sparta, saying; "That the state of Sparta was like rivers; strong when they had run a great way, and weak towards their head."

108. One was examined upon certain scandalous words spoken against the king. He confessed them, and said; "It is true, I spake them, and if the wine had not failed, I had said much more."

110. Trajan would say, "That the king's exchequer was like the spleen; for when that did swell, the whole body did pine."

115. Charles the Bald allowed one, whose name was Scottus, to sit at the table with him, for his pleasure: Scottus sat on the other side of the table. One time the king being merry with him, said to him; "What is there between Scott and I?" Scottus answered; "The table only."

113. There was a marriage between a widow of great wealth, and a gentleman of a great house, that had no estate or means. Jack Roberts said, "that marriage was like a black pudding; the one brought blood, and the other brought sewer and oatmeal."

149. Croesus said to Cambyfes, "That peace was better than war; because in peace the sons did bury their fathers, but in the wars the fathers did bury their sons."

154. Carvajal, when he was drawn to execution, being fourscore and five years old, and laid upon the hurdle, said; "What! young in cradle, old in cradle!"

161. Diogenes was asked in a kind of scorn; "What was the matter, that philosophers haunted rich men, and not rich men philosophers?" he answered; "Because the one knew what they wanted, the other did not."

162. Demetrius, king of Macedon, had a petition offered him divers times by an old woman, and still answered; "He had no leisure." Whereupon the woman said aloud; "Why then give over to be king."

175. There were two gentlemen, otherwise of equal degree, save that the one was of the ancienter house. The other in courtesy asked his hand to kiss: which he gave him; and he kiss'd it: but said withal, to right himself, by way of friendship, "Well, I and you, against any two of them:" putting himself first.

198. The mistocles would say of himself; "That he was like a plane-tree, that in te mpests men fled to him, and in fair weather men were ever cropping his leaves."

199. Themistocles said of speech; "That it was like arras, that spread abroad shews fair images, but contracted is but like packs."

211. Lycurgus would say of divers of the heroes of the heathen; "That he wondered



"wondered that men should mourn upon their days, for them, as mortal men, and yet sacrifice to them as gods."

213. There is an ecclesiastical writer of the papists, to prove antiquity of confession in the form that it now is, doth note, in very ancient times, even in the primitive times, amongst other foul slanderers spread against the christians, one was; "That they did adore the genitorics of their priests. Which (he saith) grew from the posture of the confessant, and the priest in confession: which is, that the confessant kneels down, before the priest sitting in a raised chair above him."

216. Fabricius, in conference with Pyrrhus, was tempted to revolt to him; Pyrrhus telling him, that he should be partner of his fortunes, and second person to him. But Fabricius answered, in a scorn, to such a motion; "Sir, that would not be good for yourself: for if the Epirotes once know me, they will rather desire to be governed by me than by you."

221. Thales said; "that life and death were all one." One that was present asked him; "Why do not you die then?" Thales said again; "Because they are all one."

223. An Egyptian priest having conference with Solon, said to him; "You Grecians are ever children; you have no knowledge of antiquity, nor antiquity of knowledge."

227. Diogenes was one day in the market-place with a candle in his hand, and being asked; "What he sought?" he said, "He sought a man,"

228. Bias being asked; How a man should order his life? answered; "As if a man should live long, or die quickly."

229. Queen Elizabeth was entertained by my lord Burleigh at Theobalds: and at her going away, my lord obtained of the queen, to make seven knights. They were gentlemen of the country, of my lord's friends and neighbours. They were placed in a rank, as the queen should pass by the hall; and to win antiquity of knighthood, in order, as my lord favoured; though indeed the more principal gentlemen were placed lowest. The queen was told of it, and said nothing; but when she went along, she passed them all by, as far as the skreen, as if she had forgot it: and when she came to the skreen, she seemed to take herself with the manner, and said, "I had almost forgot what I promised." With that she turned back, and knighted the lowest first, and so upward. Whereupon Mr. Stanhope, of the privy-chamber, a while after told her: "Your majesty was too fine for my lord Burleigh." She answered; "I have but fulfilled the Scripture; *the first shall be last, and the last first.*"

235. Sir Fulke Grevill had much private access to queen Elizabeth, which he used honourably, and did many men good; yet he would say merrily of himself; "That he was like Robin Goodfellow; for when the maids spilt the milk-pans, or kept any racket, they would lay it upon Robin: so what tales the ladies about the queen told her, or other bad offices that they did, they would put it upon him."

240. There was a polittick sermon, that had no divinity in it, was preached before the king. The king, as he came forth, said to bishop Andrews, "Call you this a sermon?" the bishop answered; "And it please you majesty, by a charitable construction, it may be a sermon."

244. Henry Noel would say; "That courtiers were like fasting-days; they were next the holy-days, but in themselves they were the most meagre days of the week."

247. Cato said; "The best way to keep good acts in memory, was to refresh them with new."

259. Aristippus said; "He took money of his friends, not so much to use it himself, as to teach them how to bestow their money."

260. A trumpet said to Aristippus; "That she was with child by him:" he answered; "You know that no more, than if you went through a hedge of thorns, you could say, This thorn pricked me."

263. Democritus said; "That truth did lie in profound pits, and when it was got, it needed much refining."



266. Diogenes said of a young man that danced daintily, and was much commended; "The better, the worse."

271. There was a nobleman that was lean of visage, but immediately after his marriage he grew pretty plump and fat. One said to him; "Your lordship doth contrary to other married men; for they at the first wax lean, and you wax fat." Sir Walter Raleigh stood by, and said; "Why, there is no beast, that if you take him from the common, and put him into the fether, but he will wax fat."

272. Diogenes seeing one that was a buffard, casting stones among the people, bad him take heed he hit not his father.

275. It was said by many concerning the canons of the council of Trent; "That we are beholden to Aristotle for many articles of our faith."

## Certain APOPTHEGMS of Lord BACON.

First published in his *Remains*.

1. PLUTARCH said well, "It is otherwise in a common-wealth of men than of bees: the hive of a city or kingdom is in best condition when there is least of noise or buz in it."

2. The same Plutarch said of men of weak abilities set in great place, that they were like little statues set on great bales, made to appear the less by their advancement."

3. He said again; "Good fame is like fire. When you have kindled it, you may easily preserve it; but if once you extinguish it, you will not easily kindle it again; at least, not make it burn as bright as it did."

4. Queen Elizabeth seeing Sir Edward ----- in her garden, look'd out at her window, and asked him in Italian, What does a man think of when he thinks of nothing? Sir Edward (who had not had the effect of some of the queen's grants so soon as he had hoped and desired) paused a little; and then made answer, "Madam, he thinks of a woman's promise." The queen shrunk in her head, but was heard to say, "Well, Sir Edward, I must not confute you." Anger makes dull men witty, but it keeps them poor.

5. When any great officer, ecclesiastical or civil, was to be made, the queen would inquire after the piety, integrity, learning of the man. And when she was satisfied in these qualifications, she would consider of his personage. And upon such an occasion she pleased once to say to me, "Bacon, how can the magistrate maintain his authority when the man is despised?"

6. In eighty-eight, when the queen went from Temple-bar along Fleet-street, the lawyers were ranked on one side, and the companies of the city on the other; said Mr. Bacon to a lawyer that stood next to him: "Do but observe the courtiers; if they bow first to the citizens, they are in debt; if first to us, they are in law."

7. King James was wont to be very earnest with the country gentlemen to go from London to their country houses. And sometimes he would say thus to them; "Gentlemen, at London, you are like ships at sea, which shew like nothing; but in your country villages, you are like ships in a river, which look like great things."

8. Soon after the death of a great officer, who was judged no advancer of the king's matters, the king said to his solicitor Bacon, who was his kinsman, "Now tell me truly, what say you of your cousin that is gone?" Mr. Bacon answered, "Sir, since your majesty doth charge me, I'll e'en deal plainly with you, and give you such a character of him, as if I were to write his story. I do think he was no fit counsellor to make your affairs better: but yet he was fit to have kept them from growing worse." The king said, "On my soul, man, in the first thou speakest like a true man, and in the latter like a kinsman."

9. King James, as he was a prince of great judgment, so he was a prince of



a marvellous pleasant humour; and there now come into my mind two instances of it. As he was going through Lusen by Greenwich, he asked what town it was? They said, Lusen. He asked a good while after, "What town is this we are now in?" They said, still 'twas Lusen. "On my soul," said the king, "I will be king of Lusen."

10. In some other of his progresses, he asked how far 'twas to a town whose name I have forgotten. They said, Six miles. Half an hour after he asked again. One said, Six miles and an half. The king alighted out of his coach, and crept under the shoulder of his led horse. And when some asked his majesty what he meant? "I must stalk," said he, "for yonder town is shy, and flies me."

11. Count Gondomar sent a compliment to my lord St. Alban, wishing him a good Easter. My lord thanked the messenger, and said, "he could not at present requite the count better than in returning him the like; that he wished his lordship a good Paslover."

12. My lord chancellor Elsmere, when he had read a petition which he disliked, would say; "What, you would have my hand to this now?" And the party answering, Yes: he would say farther, "Well, so you shall; nay, you shall have both my hands to it." And so would with both his hands tear it in pieces.

13. Sir Francis Bacon was wont to say of an angry man who suppressed his passion, "that he thought worse than he spoke;" and of an angry man that would chide, "that he spoke worse than he thought."

14. He was wont also to say, "that power in an ill man was like the power of a black witch; he could do hurt, but no good with it." And he would add, "that the magicians could turn water into blood, but could not turn the blood again to water."

15. When Mr. Attorney Coke, in the exchequer, gave high words to Sir Francis Bacon, and stood much upon his higher place; Sir Francis said to him, "Mr. Attorney, the less you speak of your own greatness, the more I shall think of it; and the more, the less."

16. Sir Francis Bacon coming into the earl of Arundel's garden, where there were a great number of ancient statues of naked men and women, made a stand, and as astonished, cried out, "The resurrection!"

17. Sir Francis Bacon (who was always for moderate counsels) when one was speaking of such a reformation of the church of England, as would in effect make it no church; said thus to him, "Sir, the subject we talk of is the eye of England; and if there be a speck or two in the eye, we endeavour to take them off; but he were a strange oculist who would pull out the eye."

18. The same Sir Francis Bacon was wont to say, "that those who left useful studies for useless scholastic speculations, were like the Olympick gamblers, who abstained from necessary labours, that they might be fit for such as were not so."

19. He likewise often used this comparison: "The empirical philosophers are like to pismires; they only lay up and use their store. The rationalists are like the spiders; they spin all out of their own bowels. But give me a philosopher, who like the bee hath a middle faculty, gathering from abroad, but digesting that which is gathered by his own virtue."

20. The lord St. Alban, who was not over-hasty to raise theories, but proceeded slowly by experiments, was wont to say to some philosophers, who would not go his pace; "Gentlemen, nature is a labyrinth, in which the very haste you move with, will make you lose your way."

21. The same lord, when he spoke of the Dutchmen, used to say, "that we could not abandon them for our safety, nor keep them for our profit." And sometimes he would express the same sense in this manner; "We hold the Belgic lion by the ears."

\* See the substance of this in *N. v. Org. and Cogitata et Visa*. Vol. III.



22. The same lord, when a gentleman seemed not much to approve of his liberality to his retinue, said to him; "Sir, I am all of a piece, if the head be lifted up, the inferior parts of the body must too."

23. The lord Bacon was wont to commend the advice of the plain old man at Buxton that sold becons: a proud lazy young fellow came to him for a becon upon trust; to whom the old man said; "Friend, hast thou no money? borrow of thy back, and borrow of thy belly, they'll ne'er ask thee again, I shall be dunning thee every day."

24. Jack Weeks said of a great man (just then dead) who pretended to some religion, but was none of the best livers; "Well, I hope he is in heaven. "Every man thinks as he wishes; but if he be in heaven, 'twere pity it were "known."





## ORNAMENTA RATIONAΛIA:

## ELEGANT SENTENCES,

Some made, others collected by the Lord Bacon;  
and by him put under the abovesaid title.

Collected out of the *Mimi* of Publius, and published in the *Remains*.

1. **A**LEATOR, *quanto in arte est melior, tanto est nequior.*  
A gamester, the greater master he is in his art, the worse man he is.
2. *Arcum, intus frangit; animum, remisso.*  
Much bending breaks the bow; much unbending, the mind.
3. *Bis vincit, qui se vincit in victoria.*  
He conquers twice, who upon victory overcomes himself.
4. *Cam vitia prosunt, peccat, qui recte facit.*  
If vices were upon the whole matter profitable, the virtuous man would be the sinner.
5. *Bene dormit, qui non sentit quod male dormiat.*  
He sleeps well, who feels not that he sleeps ill.
6. *Deliberare utilia, mora est tutissima.*  
To deliberate about useful things, is the safest delay.
7. *Dolor decrescit, ubi quo crescat non habet.*  
The flood of grief decreaseth, when it can swell no higher.
8. *Etiā innocentes cogit mentiri dolor.*  
Pain makes even the innocent man a liar.
9. *Etiā celeritas in desiderio, mora est.*  
In desire, swiftness itself is delay.
10. *Etiā capillus unus habet umbram suam.*  
The smallest hair casts a shadow.
11. *Fidem qui perdit, quo se servat in reliquum?*  
He that has lost his faith, what has he left to live on?
12. *Formosa facies muta commendatio est.*  
A beautiful face is a silent commendation.
13. *Fortuna nimium quem fovet, stultum facit.*  
Fortune makes him a fool, whom she makes her darling.
14. *Fortuna obesse nulli contenta est semel.*  
Fortune is not content to do a man but one ill turn.
15. *Pacit gratum fortuna, quem nemo videt.*  
The fortune which no body sees, makes a man happy and unenvied.
16. *Heu! quam miserum est ab illo laedi, de quo non possis queri.*  
O! what a miserable thing it is to be hurt by such a one of whom it is in vain to complain.
17. *Homo toties moritur quoties amittit suos.*  
A man dies as often as he loses his friends.
18. *Haeridis fletus sub persona risus est.*  
The tears of an heir are laughter under a vizard.



## A COLLECTION OF SENTENCES.

19. *Yucundum nihil est, nisi quod reficit varietas.*  
Nothing is pleasant, to which variety does not give a relish.
20. *Invidiam ferre, aut fortis, aut felix potest.*  
He may bear envy, who is either courageous or happy.
21. *In malis sperare bonum, nisi innocens, nemo potest.*  
None but a virtuous man can hope well in ill circumstances.
22. *In vindicando, criminosa est celeritas.*  
In taking revenge, the very haste we make is criminal.
23. *In calamitosa risus etiam injuria est.*  
When men are in calamity, if we do but laugh we offend.
24. *Improbe Neptunum accuset, qui iterum naufragium facit.*  
He accuseth Neptune unjustly, who makes shipwreck a second time.
25. *Multis minatur, qui uni facit injuriam.*  
He that injures one, threatens an hundred.
26. *Mora omnis ingrata est, sed facit sapientiam.*  
All delay is ungrateful, but we are not wise without it.
27. *Mori est felix antequam mortem invocet.*  
Happy he who dies ere he calls for death to take him away.
28. *Malus ubi bonum se simulat, tunc est pessimus.*  
An ill man is always ill; but he is then worst of all, when he pretends to be a saint.
29. *Magno cum periculo custoditur, quod multis placet.*  
Lock and key will scarce keep that secure, which pleases every body.
30. *Male vivunt qui se semper victuros putant.*  
They think ill, who think of living always.
31. *Male secum agit aeger, medicum qui haeridem facit.*  
That sick man does ill for himself, who makes his physician his heir.
32. *Multos timere debet, quem multi timeant.*  
He of whom many are afraid, ought himself to fear many.
33. *Nulla tam bona est fortuna, de qua nil possis queri.*  
There is no fortune so good, but it bates an ace.
34. *Pars beneficii est, quod petitur si bene neges.*  
It is part of the gift, if you deny genteely what is asked of you.
35. *Timidus vocat se cautum, parcam sordidus.*  
The coward calls himself a wary man; and the miser says, he is frugal.
36. *O vita! misere longa, felici brevis.*  
O life! an age to him that is in misery; and to him that is happy, a moment.

## A COLLECTION OF SENTENCES

OUT OF SOME OF THE

## WRITINGS of the Lord BACON.

1. **I**T is a strange desire which men have, to seek power and lose liberty.
2. Children increase the cares of life; but they mitigate the remembrance of death.
3. Round dealing is the honour of man's nature; and a mixture of falsehood is like alloy in gold and silver, which may make the metal work the better, but it embaseth it.
4. Death openeth the gate to good fame, and extinguisheth envy.
5. Schism in the spiritual body of the church, is a greater scandal than a corruption in manners: as, in the natural body, a wound or solution of continuity, is worse than a corrupt humour.
6. Revenge is a kind of wild justice, which the more a man's nature runs to, the more ought law to weed it out.

7. He



7. He that studieth revenge, keepeth his own wound green.
8. Revengeful persons live and die like witches: their life is mischievous, and their end is unfortunate.
9. It was an high speech of Seneca (after the manner of the Stoicks) that the good things which belong to prosperity, are to be wished; but the good things which belong to adversity, are to be admired.
10. He that cannot see well, let him go softly.
11. If a man be thought secret, it inviteth discovery; as the more close air sucketh in the more open.
12. Keep your authority wholly from your children, not so your purse.
13. Men of noble birth are noted to be envious towards new men when they rise: for the distance is altered; and it is like a deceit of the eye, that when others come on, they think themselves go back.
14. That envy is most malignant which is like Cain's, who envied his brother, because his sacrifice was better accepted, when there was no body but God to look on.
15. The lovers of great place are impatient of privateness, even in age, which requires the shadow: like old townsmen that will be still sitting at their street-door, though there they offer age to scorn.
16. In evil, the best condition is, not to will; the next, not to can.
17. In great place, ask counsel of both times: of the ancient time, what is best; and of the latter time, what is fittest.
18. As in nature things move more violently to their place, and calmly in their place: so virtue in ambition is violent; in authority, settled and calm.
19. Boldness in civil business, is like pronunciation in the orator of Demosthenes; the first, second, and third thing.
20. Boldness is blind: wherefore it is ill in counsel, but good in execution. For in counsel it is good to see dangers; in execution not to see them, except they be very great.
21. Without good-nature, man is but a better kind of vermin.
22. God never wrought miracle to convince atheism, because his ordinary works convince it.
23. The great atheists indeed are hypocrites, who are always handling holy things, but without feeling; so as they must needs be cauterized in the end.
24. The master of superstition is the people. And in all superstition, wise men follow fools.
25. In removing superstitions, care would be had, that (as it saith in ill purgings) the good be not taken away with the bad: which continually is done when the people is the physician.
26. He that goeth into a country before he hath some entrance into the language, goeth to school, and not to travel.
27. It is a miserable state of mind (and yet it is commonly the case of kings) to have few things to desire, and many things to fear.
28. Depression of the nobility may make a king more absolute, but less safe.
29. All precepts concerning kings are, in effect, comprehended in these remembrances: remember thou art a man; remember thou art God's vicegerent: The one bridleth their power, and the other their will.
30. Things will have their first or second agitation: if they be not tossed upon the arguments of counsel, they will be tossed upon the waves of fortune.
31. The true composition of a counsellor, is, rather to be skilled in his master's business than his nature; for then he is like to advise him, and not to feed his humour.
32. Private opinion is more free, but opinion before others is more reverend.
33. Fortune is like a market, where many times if you stay a little the price will fall.
34. Fortune sometimes turneth the handle of the bottle, which is easy to be taken hold of; and after the belly, which is hard to grasp.
35. Generally it is good to commit the beginning of all great actions to Argus with an hundred eyes; and the ends of them to Briareus with an hundred hands; first to watch, and then to speed.



## A COLLECTION OF SENTENCES

36. There is great difference betwixt a cunning man and a wise man. There be that can pack the cards, who yet cannot play well; they are good in cavvasses and factions, and yet otherwise mean men.
37. Extreme self-lovers will set a man's house on fire, though it were but to roast their eggs.
38. New things, like strangers, are more admired, and less favoured.
39. It were good that men, in their innovations, would follow the example of time itself, which indeed innovateth greatly, but quietly, and by degrees scarce to be perceived.
40. They that reverence too much old time, are but a scorn to the new.
41. The Spaniards and Spartans have been noted to be of small dispatch. *Mi venga la muerte de Spagna*; Let my death come from Spain, for then it will be sure to be long a coming.
42. You had better take for business a man somewhat absurd, than over-formal.
43. Those who want friends to whom to open their griefs, are cannibals of their own hearts.
44. Number itself importeth not much in armies, where the people are of weak courage: for (as Virgil says) it never troubles a wolf how many the sheep be.
45. Let states, that aim at greatness, take heed how their nobility and gentry multiply too fast. In coppice woods, if you leave your saddles too thick, you shall never have clean underwood, but shrubs and bushes.
46. A civil war is like the heat of a fever; but a foreign war is like the heat of exercise, and serveth to keep the body in health.
47. Suspicions among thoughts, are like bats among birds, they ever fly by twilight.
48. Base natures, if they find themselves once suspected, will never be true.
49. Men ought to find the difference between saltness and bitterness. Certainly he that hath a satirical vein, as he maketh others afraid of his wit, so he had need be afraid of others' memory.
50. Discretion in speech is more than eloquence.
51. Men seem neither well to understand their riches, nor their strength: of the former they believe greater things than they should, and of the latter much less. And from hence certain fatal pillars have bounded the progress of learning.
52. Riches are the baggage of virtue; they cannot be spared, nor left behind, but they hinder the march.
53. Great riches have sold more men than ever they have bought out.
54. Riches have wings, and sometimes they fly away of themselves, and sometimes they must be set flying to bring in more.
55. He that defers his charity until he is dead, is (if a man weighs it rightly) rather liberal of another man's, than of his own.
56. Ambition is like choler, if it can move, it makes men active; if it be stopped, it becomes adust, and makes men melancholy.
57. To take a soldier without ambition, is to pull off his spurs.
58. Some ambitious men seem as screens to princes in matters of danger and envy. For no man will take such parts, except he be like the feel'd dove, that mounts and mounts, because he cannot see about him.
59. Princes and states should chuse such ministers as are more sensible of duty than rising; and should discern a busy nature from a willing mind.
60. A man's nature runs either to herbs or weeds; therefore let him seasonably water the one, and destroy the other.
61. If a man look sharply and attentively, he shall see fortune; for though she be blind, she is not invisible.
62. Usury bringeth the treasure of a realm or state into few hands: for the usurer being at certainties, and others at uncertainties; at the end of the game, most of the money will be in the box.
63. Virtue is best in a body that hath rather dignity of presence, than beauty of aspect. The beautiful prove accomplished, but not of great spirit; and study, for the most part, rather behaviour than virtue.
64. The best part of beauty is that which a picture cannot express.



65. He who builds a fair house upon an ill seat, commits himself to prison.

66. If you will work on any man, you must either know his nature and fashions, and so lead him; or his ends, and so persuade him; or his weaknesses and disadvantages, and so awe him; or those that have interest in him, and so govern him.

67. Costly followers (among whom we may reckon those who are importunate in suits) are not to be liked; lest, while a man maketh his train longer, he make his wings shorter.

68. Fame is like a river that beareth up things light and swollen, and drowns things weighty and solid.

69. Seneca saith well, that anger is like ruin, which breaks itself upon that it falls.

70. Excusations, cessions, modesty itself well governed, are but arts of ostentation.

71. High treason is not written in ice; that when the body relenteth, the impression should go away.

72. The best governments are always subject to be like the fairest crystals, wherein every scible or grain is seen, which in a fouler stone is never perceived.

73. Hollow church papists are like the roots of nettles, which themselves sting not; but yet they bear all the stinging leaves.

## SHORT NOTES FOR CIVIL CONVERSATION.

1. TO deceive mens expectations generally (with cautel) argueth a staide mind, and unexpected constancy: viz. in matters of fear, anger, sudden joy or grief, and all things which may affect or alter the mind in publick or suddain accidents, or such like.

2. It is necessary to use a stedfast countenance, not wavering with action, as in moving the head or hand too much, which sheweth a fantastical, light and fickle operation of the spirit, and consequently like mind as gesture: only it is sufficient, with leisure, to use a modest action in either.

3. In all kinds of speech, either pleasant, grave, severe, or ordinary, it is convenient to speak leisurely, and rather drawingly, than hastily; because hasty speech confounds the memory, and oftentimes (besides unseemliness) drives a man either to a non-plus or unseemly flammering, harping upon that which should follow; whereas a slow speech confirmeth the memory, addeth a conceit of wisdom to the hearers, besides a seemliness of speech and countenance.

4. To desire in discourse to hold all arguments, is ridiculous, wanting true judgment; for in all things no man can be exquisite.

5, 6. To have common places to discourse, and to want variety, is both tedious to the hearers, and shews a shallowness of conceit; therefore it is good to vary, and suit speeches with the present occasions; and to have a moderation in all our speeches, especially in jesting of religion, state, great persons, weighty and important business, poverty, or any thing deserving pity.

7. A long continued speech, without a good speech of interlocation, sheweth slowness; and a good reply, without a good set speech, sheweth shallowness and weakness.

8. To use many circumstances, ere you come to the matter, is wearisome; and to use none at all, is but blunt.

9. Baseness is a great hindrance to a man, both of uttering his conceits, and understanding what is propounded unto him: wherefore, it is good to press himself forwards with discretion, both in speech, and company of the better sort.



An ESSAY on DEATH.

1. Have often thought upon death, and I find it the least of all evils. All that which is past is as a dream; and he that hopes or depends upon time coming, dreams waking. So much of our life as we have discovered is already dead; and all those hours which we share, even from the breasts of our mother, until we return to our grand-mother the earth, are part of our dying days; whereof even this is one, and those that succeed are of the same nature, for we die daily; and as others have given place to us, so we must in the end give way to others.

2. Physicians, in the name of death include all sorrow, anguish, disease, calamity, or whatsoever can fall in the life of man, either grievous or unwelcome; but these things are familiar unto us, and we suffer them every hour; therefore we die daily, and I am older since I affirmed it.

3. I know many wise men, that fear to die; for the change is bitter, and flesh would refuse to prove it: besides, the expectation brings terror, and that exceeds the evil. But I do not believe, that any man fears to be dead, but only the stroke of death: and such are my hopes, that if heaven be pleased, and nature renew but my lease for twenty one years more, without asking longer days, I shall be strong enough to acknowledge without mourning, that I was begotten mortal. Virtue walks not in the high-way, though she go *per alla*; this is strength and the blood to virtue, to contemn things that be desired, and to neglect that which is feared.

4. Why should man be in love with his fetters, though of gold? Art thou drowned in security? Then I say thou art perfectly dead. For though thou movest, yet thy soul is buried within thee, and thy good angel either forsakes his guard or sleeps. There is nothing under heaven, saving a true friend (who cannot be counted within the number of moveables) unto which my heart doth lean. And this dear freedom hath begotten me this peace, that I mourn not for that end which must be, nor spend one with to have one minute added to the uncertain date of my years. It was no mean apprehension of Lucian, who says of Menippus, that in his travels through hell, he knew not the kings of the earth from other men, but only by their louder cryings and tears: which was fostered in them through the remorseful memory of the good days they had seen, and the fruitful havings which they so unwillingly left behind them: he that was well seated, looked back at his portion, and was loth to forsake his farm; and others either minding marriages, pleasures, profit, or preferment, desired to be excused from death's banquet: they had made an appointment with earth, looking at the blessings, not the hand that enlarged them, forgetting how unclothedly they came hither, or with what naked ornaments they were arrayed.

5. But were we servants of the precept given, and observers of the heathens rule *memento mori*, and not become benighted with this seeming felicity, we should enjoy it as men prepared to lose, and not wind up our thoughts upon so perishing a fortune: he that is not slackly strong (as the servants of pleasure) how can he be found unready to quit the veil and false viage of his perfection? The soul having shaken off her flesh, doth then set up for herself, and contemning things that are under, shews what finger hath enforced her; for the souls of idiots are of the same piece with those of statesmen, but now and then nature is at a fault, and this good guest of ours takes soil in an imperfect body, and so is slackened from shewing her wonders; like an excellent musician, which cannot utter himself upon a defective instrument.

6. But see how I am swerved, and lose my course, touching at the soul, that doth least hold action with death, who hath the surest property in this frail act; his style is the end of all flesh, and the beginning of incorruption.

This



This ruler of monuments leads men for the most part out of this world with their heels forward ; in token that he is contrary to life ; which being obtained, sends men headlong into this wretched theatre, where being arrived, their first language is that of mourning. Nor in my own thoughts, can I compare men more fitly to any thing, than to the Indian fig-tree, which being ripened to his full height, is said to decline his branches down to the earth ; whereof she receives again, and they become roots in their own stock.

So man having derived his being from the earth, first lives the life of a tree, drawing his nourishment as a plant, and made ripe for death he tends downwards, and is sowed again in his mother the earth, where he perisheth not, but expects a quickening.

7. So we see death exempts not a man from being, but only presents an alteration ; yet there are some men (I think) that stand otherwise persuaded. Death finds not a worse friend than an alderman, to whose door I never knew him welcome ; but he is an importunate guest, and will not be said nay.

And though they themselves shall affirm, that they are not within, yet the answer will not be taken ; and that which heightens their fear is, that they know they are in danger to forfeit their flesh, but are not wise of the payment day : which sickly uncertainty is the occasion that (for the most part) they step out of this world unfurnished for their general account, and being all unprovided, desire yet to hold their gravity, preparing their souls to answer in scarlet.

Thus I gather, that death is disagreeable to most citizens, because they commonly die intestine ; this being a rule, that when their will is made, they think themselves nearer a grave than before : now they, out of the wisdom of thousands, think to scare destiny, from which there is no appeal, by not making a will, or to live longer by protestation of their unwillingness to die. They are for the most part well made in this world (accounting their treasure by legions, as men do devils) their fortune looks toward them, and they are willing to anchor at it, and desire (if it be possible) to put the evil day far off from them, and to adjourn their ungrateful and killing period.

No, these are not the men which have bespoken death, or whose looks are assured to entertain a thought of him.

8. Death arrives gracious only to such as sit in darkness, or lie heavy burthened with grief and irons ; to the poor Christian, that sits bound in the galley ; to desartful widows, penfive prisoners, and deposed kings ; to them whose fortune runs back, and whose spirit mutinies ; unto such death is a redeemer, and the grave a place for retiredness and rest.

These wait upon the shore of death, and wait unto him to draw near, wishing above all others, to see his star, that they might be led to his place ; wooing the remorseless sisters to wind down the watch of their life, and to break them off before the hour.

9. But death is a doleful messenger to an usurer, and fate untimely cuts their thread ; for it is never mentioned by him, but when rumours of war, and civil tumults put him in mind thereof.

And when many hands are armed, and the peace of a city in disorder, and the foot of the common soldiers sounds an alarm on his stairs, then perhaps such a one (broken in thoughts of his moneys abroad, and cursing the monuments of coin which are in his house) can be content to think of death, and (being hasty of perdition) will perhaps hang himself, lest his throat should be cut ; provided that he may do it in his study, surrounded with wealth, to which his eye sends a faint and languishing salute, even upon the turning off ; remembering always, that he have time and liberty, by writing, to depute himself as his own heir.

For that is a great peace to his end, and reconciles him wonderfully upon the point.

10. Herein we all dally with ourselves, and are without proof till necessity. I am not of those that dare promise to pine away myself in vain-glory, and I hold such to be but feat boldness, and them that dare commit it to be vain. Yet for my part, I think nature should do me great wrong, if I should be so long in dying, as I was in being born.

To



To speak truth, no man knows the limits of his own patience; nor can divine how able he shall be in his sufferings, till the storm come (the perfectest virtue being tried in action) but I would (out of a care to do the best business well) ever keep a guard, and stand upon keeping faith and a good conscience.

11. And if wishes might find place, I would die together, and not my mind often, and my body once; that is, I would prepare for the messengers of death, sickness, and affliction, and not wait long, or be attempted by the violence of pain. Herein I do not profess myself a Stoick, to hold grief no evil, but opinion, and a thing indifferent.

But I consent with Caesar, that the suddenest passage is easiest, and there is nothing more awakens our resolve and readiness to die, than the quieted conscience, strengthened with opinion that we shall be well spoken of upon earth by those that are just, and of the family of virtue; the opposite whereof, is a fury to man, and makes even life unsweet.

Therefore, what is more heavy than evil fame deserved? Or likewise, who can see worse days, than he that yet living doth follow at the funerals of his own reputation?

I have laid up many hopes, that I am privileged from that kind of mourning, and could wish the like peace to all those with whom I wage love.

12. I might say much of the commodities that death can sell a man; but briefly, death is a friend of ours, and he that is not ready to entertain him, is not at home. Whilst I am, my ambition is not to fore-flow the tide; I have but so to make my interest of it as I may account for it; I would wish nothing but what might better my days, nor desire any greater place than the front of good opinion. I make not love to the continuance of days, but to the goodness of them; nor wish to die, but refer myself to my hour, which the great dispenser of all things hath appointed me; yet as I am frail, and suffered for the first fault, were it given me to chuse, I should not be earnest to see the evening of my age; that extremity of itself being a disease, and a mere return into infancy: so that if perpetuity of life might be given me, I should think what the Greek poet said, Such an age is a mortal evil. And since I must needs be dead, I require it may not be done before mine enemies, that I be not stript before I be cold; but before my friends. The night was even now; but that name is lost; it is not now late, but early. Mine eyes begin to discharge their watch, and compound with this fleshly weakness for a time of perpetual rest; and I shall presently be as happy for a few hours, as I had died the first hour I was born.



# WORKS POLITICAL.

## Of the STATE of EUROPE.

[Written about the Year 1580.]

IN the consideration of the present state of Christendom, depending on the inclinations and qualities of the princes, governors of the same, first the person of the pope, acknowledged for supreme of the princes catholick, may be brought forth.

Gregory XIII. of the age of seventy years, by surname Boncompagno, born Pope. in Bologna of the meanest state of the people, his father a shoemaker by occupation; of no great learning nor understanding, busy rather in practice, than desirous of wars, and that rather to further the advancement of his son and his house (a respect highly regarded of all the popes) than of any inclination of nature, the which, yet in these years abhorreth not his secret pleasures. Howbeit, two things especially have set so sharp edge to him, whereby he doth bend himself so vehemently against religion. The one is a mere necessity, the other the solicitation of the king of Spain. For if we consider duly the estate of the present time, we shall find that he is not so much carried with the desire to suppress our religion, as driven with the fear of the downfal of his own, if in time it be not upheld and restored.

The reasons be these: he seeth the king of Spain already in years, and worn with labour and troubles, that there is little hope in him of long life. And he failing, there were likely to ensue great alterations of state in all his dominions, the which should be joined with the like in religion, especially in this divided time, and in Spain, already so forward, as the fury of the inquisition can scarce keep in.

In France, the state of that church seemeth to depend on the sole life of the king now reigning, being of a weak constitution full of infirmities, not likely to have long life, and quite out of hope of any issue. Of the duke of Anjou he doth not assure himself; besides the opinion conceived of the weakness of the complexion of all that race, giving neither hope of length of life nor of children. And the next to the succession make already profession of religion, besides the increase thereof daily in France: England and Scotland are already, God be thanked, quite reformed, with the better part of Germany. And because the queen's majesty hath that reputation to be the defender of the true religion and faith; against her majesty, as the head of the faithful, is the drift of all their mischiefs.

The king of Spain having erected, in his conceit, a monarchy, wherein seeking reputation in the protection of religion, this conjunction with the pope is as necessary to him for the furtherance of his purposes, as to the pope behoveful for the advancing of his house and for his authority; the king of Spain having already bestowed on the pope's son, degree of title and of office, with great revenues. To encourage the pope herein, being head of the church, they set before him the analogy of the name Gregory, saying, that we were first under a Gregory brought to the faith, and by a Gregory are again to be reduced to the obedience of Rome.

A prophecy likewise is found out that foretelleth, the dragon sitting in the chair of Peter, great things should be brought to pass.

Thus is the king of France solicited against those of the religion in France; the emperor against those in his dominions; divisions set in Germany; the Low Country miserably oppressed; and daily attempts against her majesty, both by



force and practice; hereto serve the seminaries, where none are now admitted, but take the oath against her majesty.

The sect of the Jesuits are special instruments to alienate the people from her majesty, sow faction, and to absolve them of the oath of obedience, and prepare the way to rebellion and revolt.

Besides, for confirmation of their own religion they have used some reformation of the clergy, and brought in catechizing.

*To go forth with the princes of Italy next in situation.*

Duke of  
Tuscany.

The great duke of Tuscany, Francisco de Medici, son to Cosmo, and the third duke of that family and province; of the age of forty years, of disposition severe and sad, rather than manly and grave; no princely port or behaviour more than a great justicer; inclined to peace, and gathering money. All Tuscany is subject unto him, wherein were divers commonwealths; whereof the chief were Florence, Siena, and Pisa, Prato, and Pistoia, saving Lucca, and certain forts on the sea-coast held by the king of Spain.

He retaineth in his service few, and they strangers, to whom he giveth pensions. In all his citadels he hath garrison of Spaniards, except at Siena: in house-keeping spendeth little, being as it were in pension, agreeing for so much the year with a citizen of Florence for his diet: he has a small guard of Swissers, and when he rideth abroad a guard of forty light horsemen. The militia of his country amounteth to forty thousand soldiers, to the which he granteth leave to wear their weapons on the holy days, and other immunities. Besides, he entertaineth certain men of arms, to the which he giveth seven crowns the month. He also maintaineth seven galleys, the which serve under his knights, erected by his father in Pisa, of the order of St. Stephano: of these galleys three go every year in chase.

His common exercise is in distillations, and in trying of conclusions, the which he doth exercise in a house called Cassino in Florence, where he spendeth the most part of the day; giving ear in the mean season to matters of affairs, and conferring with his chief officers. His revenues are esteemed to amount to a million and a half of crowns, of the which spending half a million, he layeth up yearly one million. But certainly he is the richest prince in all Europe of coin. The form of his government is absolute, depending only of his will and pleasure, though retaining in many things the ancient offices and shew. But those magistrates resolve nothing without his express directions and pleasure. Privy council he useth none, but reposeth most his trust on sound secretaries, and conferreth chiefly with his wife, as his father did with one of his secretaries. For matter of examinations, one Corbolo hath the especial trust; he doth favour the people more than the nobility, because they do bear an old grudge to the gentlemen, and the people are the more in number, without whom the nobility can do nothing. One thing in him giveth great contentment to the subjects, that he vouchsafeth to receive and hear all their petitions himself. And in his absence from Florence, those that have suit do resort to the office, and there exhibit their bill endorsed; whereof within three days absolute answer is returned them, unless the matter be of great importance, then have they direction how to proceed. He is a great justicer; and for the ease of the people, and to have the better eye over justice, hath built hard by his palace a fair row of houses for all offices together in one place.

Two years since he married la Signora Bianca his concubine, a Venetian of Casa Capelli, whereby he entered straiter amity with the Venetians: with the pope he had good intelligence, and some affinity by the marriage of Signor Jacomo, the pope's son, in Casa Sforza.

To the emperor he is allied, his first wife being the emperor Maximilian's sister.

With Spain he is in strait league, and his mother was of the house of Toledo; his brother likewise, D. Pietro, married in the same house. With France he standeth at this present in some mistaking.

With Ferrara always at jar, as with all the dukes of Italy for the presence in some controversy.



All his revenues arise of taxes and customs; his domains are very small.

He hath by his first wife one son, of the age of four or five years, and four daughters; he hath a base child by this woman, and a base brother, D. Joanni, sixteen years of age, of great expectation.

Two brothers, D. Pietro, and the cardinal.

The duke of Ferrara, Alfonso d'Este, the fifth duke, now about forty years of age, his first wife Lucrecia, daughter to Cosmo de Medici, whom they say he poisoned; his second, daughter to Ferdinand the emperor; his third wife now living, Anne daughter to the duke of Mantua. He hath no child. The chief cities of his state are Ferrara, Modena, and Reggio: he is rich in money, growing as the most of Italy of exactions; of all the princes of Italy alone inclineth to the French; with the pope hath some jar about the passage of a river. The Venetians and he fall in great hatred; with Florence hath enmity; with Lucca little skirmishes every year for a castle he buildeth on their confines, to raise a great toll in a strait passage, by reason of his mother a Guise.

William of the house of Gonzaga, the third duke of Mantua; his wife Barbara daughter to the emperor Ferdinand, by whom he hath a son of twenty two years of age, and a daughter. His son is called Vincentio, his daughter Anne married of late to the duke of Ferrara; his son likewise married a year since to the prince of Parma's daughter. The duke his self very deformed and crooked, well in years. Montferrat likewise appertaineth to him. Divers of his house have pension always, and serve the king of Spain; his brother the duke of Nevers remaineth in France. He only seeketh to maintain his estate and enrich himself; his greatest pleasure is in horses and building.

The duke of Urbin, Francesco Maria, of the house of Roveré, the second of that name, a prince of good behaviour and witty. In his state are seven reasonable fair cities: Pesaro, Augubio, Sinigaglia, Fossombrone, Sanleo, Cagli, Urbino; Pesaro and Sinigaglia are fortresses on the sea side, Urbin and Sanleo on the Appenine, well fortified. He holdeth three provinces, Montefeltro, Massa Trebaria, and Vicariato di Mondavio.

There have been good princes and valiant of that house, not so great exactors as the rest of Italy, therefore better beloved of their subjects, which love restored their house, being displaced by pope Leo X.

His wife Leonora, sister to the duke of Ferrara, by whom he hath no children, and now is divorced. He hath two sisters, the one married to the duke of Gravina, the other to the prince Bissignano, and a third is to marry, whose name is Lavina.

Ottaviano, first duke of Castro, then of Camerino, and after of Parma and Piacenza, with great trouble restored to his estate; now is aged and liveth quietly: his wife, Marguerite daughter to Charles the fifth, first wife to Alexander de Medici first duke of Florence. He hath one son called Alexander now general for the king of Spain in the Low Countries; his daughter Vittoria was mother to the duke of Urbin.

The cardinal Farnese his uncle, of great credit in that college, long time hath aspired to be pope, but withstood by the king of Spain; on whom though now that house depend, yet forgetteth not, as he thinketh, the death of Pier Luigi, and the loss of Parma and Piacenza, restored to their house by the French.

The young princes of Mirandola, in the government of their mother Fulvia Correggio, and under the protection of the king of France, who maintaineth there a garrison.

The duke of Savoy, Carlo Emanuel, a young prince of twenty one years, very little of stature, but well brought up and disposed. His territory is the greatest of any duke of Italy, having Piemont beyond the Alps, and Savoy on this side; divers fair towns and strong holds, richly left of his father, who was accounted a very wise prince. This duke, as is thought, is advised to remain always indifferent between Spain and France, being neighbour to them both, unless some accident do counsel him to declare himself in behalf of either. Therefore both those princes go about by marriage to have him nearer allied to them. His mother was sister to king Francis the Great; his father being expelled his dominions



nions by the French, was restored by the king of Spain, with whom while he lived he had strict intelligence. As yet his inclination doth not appear; he retaineth his father's alliances with Venice, especially in Italy, and with the emperor. With Florence he hath question for preeminence.

His revenues are judged to a million of crowns yearly; now he is in arms against Geneva, and guarded against Bern.

**Lucca.** Of free estates, Lucca the least, is under the protection of the king of Spain, small in territory; the city itself well fortified and provided, because of the doubt they have of the duke of Florence.

**Genoa.** Genoa is recommended to the king of Spain, their galleys serve under him, and the chiefest of their city are at his devotion. Though there is a faction for the French, whereto he doth hearken so weakly, that the Spaniard is there all in all; by whom that state in few years hath made a marvellous gain. And the king of Spain hath great need of their friendship, for their ports, where embark and land all men, and whatsoever is sent between Spain and Milan.

They hold Corsica an island, and Savona a fair city, and the goodliest haven in Italy, until it was destroyed by the Genevois; the which now make no profession but of merchandize.

There is a dangerous faction amongst them, between the ancient houses and the new, which were admitted into the ancient families.

**Venice.** St. George is their treasure house and receiver, as at Venice St. Mark.

Venice retaining still the ancient form of government, is always for itself in like estate and all one; at this time between the Turk and the king of Spain in continual watch, seeming to make more account of France, not so much in hope of any great assistance at this present to be had in him, but for the reputation of that nation, and the amity always they have had with the same, and behaving them so to do. They use it with good foresight and speedy preventing, sparing for no charge to meet as they may with every accident. Of late they have had some jar with the pope, as well about the inquisition, as title of land. With Ferrara and the Venetians is ancient enmity, specially because he receiveth all their banished and fugitives. They make most account of the duke of Savoy amongst the princes of Italy. They maintain divers ambassadors abroad, with the Turk, the emperor, France, Spain, and at Rome: with them is an ambassador of France and Savoy always resident, and an agent of Spain, because they gave the preference to France.

In this it seemeth all the potentates of Italy do agree to let all private grudges give place to foreign invasion, more for doubt of alteration in religion, than for any other civil cause.

There is none amongst them at this day in any likelihood to grow to any greatness. For Venice is bridled by the Turk and Spain. The duke of Tuscany seeketh rather title than territory, otherwise than by purchasing.

Savoy is yet young; the rest of no great force of themselves. France hath greatly lost the reputation they had in Italy, by neglecting the occasions offered, and suffering the king of Spain to settle himself.

**Emperor.**

The emperor Adolphe of the house of Austriche, son to Maximilian, about thirty years of age; no strong constitution of body, and greatly weakened by immoderate pleasure; no great quickness of spirit. In fashion and apparel all Spanish, where he had his education in his youth. He was most governed by his mother while she remained with him; and yet altogether by his steward Dyetrifan, and his great chamberlain Romphe, both pensionaries of Spain, and there with him maintained.

Of the empire he hath by the last imperial diet one million of dollars towards the maintenance of the garrisons of Hungary; and, besides, his guards are paid of the empire.

To the Turk he payeth yearly tribute for Hungary 40000 dollars, besides the charge of the presents and his ambassadors, amounting to more than the tribute; in all 100,000 dollars.

The ordinary garrisons in Hungary are to the number of but evil paid at this time.

The



The revenues and subsidies of Hungary do not pass 100,000 florins. The last emperor affirmed solemnly, that the charge of Hungary amounted to one million and a half.

The revenues of Bohemia, ordinary and extraordinary, amount to 50000 dollars.

In the absence of the emperor, the baron of Rosenberg is governor of Bohemia, who possesseth almost a fourth part of that country, and is a papist; neither he nor his brother have children: he beareth the emperor in hand to make him his heir.

Of Silesia and Moravia, the emperor yearly may have 200,000 florins.

Out of Austriahe of subsidy and tribute 100,000 florins, for his domains are all sold away and engaged.

Thus all his revenues make half a million of florins.

To his brothers Maximilian and Ernest he alloweth yearly, by agreement made between them, 45000 florins 2-piece, as well for Austriahe, as that might hereafter fall unto them by the decease of the archduke Ferdinand in Tyrol, the which shall come to the emperor.

The emperor altogether dependeth on Spain, as well in respect of his house, as the education he received there, and the rule his mother hath over him with the chief of his council. He is utter enemy to religion, having well declared the same in banishing the ministers out of Vienna, and divers other towns, where he goeth about to plant Jesuits.

Of his subjects greatly milked, as his house is hateful to all Germany.

The archduke Charles holdeth Syria and Carinthia, his chief abode is at Gratz; his wife is sister to the duke of Bayre, by whom he hath children.

The archduke Ferdinand hath Tyrol, and remaineth the most part at Ilsburg. For his eldest son he hath bought in Germany a pretty state, not far from Ulms; the second is a cardinal. Now he is a widower, and said, that he shall marry a daughter of the duke of Mantua.

These are uncles to the emperor: besides Maximilian and Ernest, he hath two brothers, the archduke Matthias that hath a pension of the estates of the Low Country, and a cardinal archbishop of Toledo.

In Germany there are divers princes diversly affected. The elector palatine Germany. Ludovic, a Lutheran; his chief abode is at Heidelberg.

His brother, John Casimir, Calvinist, at Keisers-lautern, or Nieustadt.

Richard their uncle at Symyers.

During the life of the last elector, Ludovic dwelt at Amberg in the Higher Palatinate.

Philip Ludovic dwelt at Norbourg on the Danow, and is commonly called duke of.

John dwelleth at Rypont, or Sweybourg, or in Bergesaber; the other three brethren have no certain dwelling place. George John, son of Rupert, count Palatin, dwelleth at Lyffeltseyn.

Augustus duke and elector of Saxon remaineth the most part at Dresden on <sup>Princes of</sup> the Elbe; sometimes at Torge on Elbe, a goodly castle fortified by John Frederick. This elector is Lutheran, and great enemy to our profession; of sixty years of age, half frantic, severe, governed much by his wife, greater exactor than the German princes are wont to be, and retaineth in his service divers Italians; his eldest son married of late the daughter of the duke of Brandebourg.

The sons of John Frederick, captive, and yet in prison, remain at Coburge in East Franconia, near the forest of Turinge.

The sons of John William abide at Vinaria in Turingia.

Joachim Frederick, son of John George elector of Brandebourg, at Hala in Saxony on the river of Sala, as administrator of the archbishoprick of Magdebourg.

George Frederick, son of George, dwelleth at Orbuche in East Franconia, or at Blaffenbourg, the which was the mansion of his uncle Albert the warrior.

The elector of Brandebourg John George remaineth at Berlin on the river of Sprea: his uncle John dwelleth at Castryne beyond Odera, very strong both by the situation, and fortified.



## OF THE STATE OF EUROPE.

William duke of Bayre, a papist, at Munich in Bavary, married the daughter of the duke of Lorrain.

His second brother Ferdinand remaineth most at Landshutt.

The third Ernest, is bishop of Frisinghen and Hildesheim, and late of Liege.

Julius duke of Brunswick, at the strong castle of Wolfenbuttel on Oker, and Ericke of Brunswick, son to Magnus, uncle to Julius, remaineth at Mynda, or where the rivers of Werra and Fulda do join, making the river of Visurgis navigable.

William duke of Luneburg hath his being at Cella, on the river Albera, Henry his brother at Gryforn, where, before, their uncle Francis was wont to dwell.

Otho their cousin, duke of Luneburg, inhabiteth Harbourg on this side the Elbe, over right against Hamburgh.

The dukes of Pomerania, John Frederick dwelleth at Steuin, Bugelsaus at Campena, sometime an abbey in the county of Bardruc. Ernest Ludovick at Wolgast on the river of Panis that runneth into the Baltic sea.

Barmin at Ragenwald in Further Pomerania, on the borders of Poland and Prussia.

Casimire at Camyn, which bishoprick he holdeth, either as administrator, or in his own possession and right.

Ulricke duke of Meckelbourg, remaineth most at Gustrow; his brother John Albert dwelleth at Swerin, whose two sons are in the court of the duke of Saxony, Adolph duke of Holf and Dytmarsh; his chief seat is at Gotorp in the duchy of Sletwick.

John his elder brother, unmarried, hath his abode at Haderberge; John, son to Christiern king of Denmark, and brother to the duke of Holf, and to Frederick now king of Denmark, bishop of Oeselya and Courland in Livonia.

William duke of Juliers, Cleve, and Bergen, hath his court at Dusseldorp in the dukedom of Bergeñe.

William landgrave of Hesse, dwelleth at Cassel on Fulda.

Ludovick at Marpurg.

Philip at Brubache on the Rhine.

George at Darmstadt.

Ludovick duke of Wirtenberge, his chief house at Stutgard, Frederick at Montbelgard.

The marques of Bathe: the elder Ernest, the second Jacob, the third brother yet younger; their chief dwelling-place is at Forstheim, or at Durlach. The sons of Philip at the Bath called Baden.

Ernest Joachim, prince of Anhalt, at Zerbest, in the midway between Magdebourg and Wittenberg; his other mansion is at Dessau on Mylda, where he was born, new built and fortified by his grandfather Ernest: he hath besides the castle of Cathenen, the which was the habitation of Wolfgang prince of Anhalt his great uncle; Ernest favoureth religion.

George Ernest, prince and earl of Henneberg, at Schleusing, by the forest called Turing.

George duke of Silesia and Bricke, of the family of the kings of Poland, dwelleth at Bricke; his eldest son, Joachim Frederick, hath married the daughter of the prince of Anhalt; his second son, John George.

Henry duke of Silesia and Lignitz, son to the brother of George, dwelleth at Lignitz; he hath no children alive.

Frederick, brother to Henry, unmarried.

Charles duke of Munsterberg and Olffe, his wife the countess of Stenberg in Bohemia, where he maketh his abode.

Henry, brother to Charles, remained at Olffe.

John Frederick duke of Teschen.

Charles duke of Lorrain, his chief court at Nancy.

His eldest son Henry of man's estate.

Charles cardinal archbishop of Metz.

A daughter



A daughter in the French court. Besides, there are in Germany three electors bishops, and divers bishops of great livings.

The free towns of greatest importance are Noremberg, Aufpurg, Ulmes, and Stralsburg: then the cantons of the Swisses, the Grisons, and Valois.

The greatest trouble in Germany at this time is about the concordate, furnished by the duke of Saxon, and the count Palatine.

There is at this present no prince in Germany greatly toward or redoubted.

The duke Casimir's credit is greatly impaired, and his ability small.

The dyet imperial shortly should be held, where the concordate shall be urged, collection for Hungary made, and a king of Romans named.

The French king, Henry the third, of thirty years of age, of a very weak <sup>France.</sup> constitution, and full of infirmities; yet extremely given over to his wanton pleasures, having only delight in dancing, feasting and entertaining ladies, and chamber-pleasures: no great wit, yet a comely behaviour and goodly personage, very poor through exacting inordinately by all devices of his subjects greatly repining that revenge and hungry government, abhorring wars and all action, yet daily worketh the ruin of those he hateth, as all of the religion and the house of Bourbon, doting fondly on some he chuseth to favour extremely, without any virtue or cause of desert in them to whom he giveth prodigally. His chief favourites now about him are the duke Joyeuse, la Valette, and monsieur D'Au. The queen mother ruleth him rather by policy and fear he hath of her, than by his good will; yet he always doth shew great reverence towards her. The Guise is in, as great favour with him as ever he was; the house is now the greatest of all France, being allied to Ferrara, Savoy, Lorrain, Scotland, and favoured of all the papists; the French king having his kinswoman to wife, and divers great personages in that realm of his house.

The chiefest at this present in credit in court, whose counsel he useth, are, Villeroi, Villaquier, Bellievre, the chancellor and lord keeper, Birague and Chiverny.

He greatly entertaineth no amity with any prince, other than for form; neither is his friendship otherwise respected of others, save in respect of the reputation of so great a kingdom.

The pope beareth a great sway, and the king of Spain, by means of his pensions; and of the queen-mother with the Guise; she for her two daughters, he for other regard, can do what he list there, or hinder what he would not have done.

The division in his country for matters of religion and state, through miscontentment of the nobility to see strangers advanced to the greatest charges of the realm, the offices of justice sold, the treasury wasted, the people polled, the country destroyed, hath bred great trouble, and like to see more. The faction between the house of Guise against that of Montmorancy, hath gotten great advantage.

At this present the king is about to restore Don Antonio king of Portugal, whereto are great levies and preparation.

Francis duke of Anjou and of Brabant, for his calling and quality greatly to <sup>Duke of</sup> be considered as any prince this day living, being second person to the king <sup>Brabant.</sup> his brother, and in likelihood to succeed him. There is noted in the disposition of this prince, a quiet mildness, giving satisfaction to all men; facility of accels and natural courtesy; understanding and speech great and eloquent; secrecy more than commonly is in the French; from his youth always desirous of action, the which thing hath made him always followed and respected. And though hitherto he hath brought to pass no great purpose, having suffered great wants, and resistance both at home and abroad, yet by the intermeddling is grown to good experience, readiness and judgment, the better thereby able to guide and govern his affairs, both in practice, in treaty, and action. Moreover, the distressed state of the world doth so concur with this his active forwardness, as it giveth him matter to work upon: and he is the only man to be seen of all them in distress, or desirous of alteration. A matter of special furtherance to all such as have achieved great things, when they have found matter disposed to receive form.



And there is to be found no other prince in this part of the world so towards and forward as the duke, towards whom they in distress may turn their eyes. We do plainly see in the most countries of Christendom so unsound and shaken an estate, as desireth the help of some great person, to set together and join again the pieces asunder and out of joint. Wherefore the presumption is great, that if this prince continue this his course, he is likely to become a mighty potentate: for, one enterprize failing, other will be offered, and still men evil at ease, and desirous of a head and captain, will run to him that is fittest to receive them. Besides, the French, desirous to shake off the civil wars, must needs attempt somewhat abroad. This duke first had intelligence with the count Ludovic in king Charles's days, and an enterprize to escape from the court, and in this king's time joined with them of the religion and malcontents; after was carried against them; seeketh the marriage with her majesty, so mighty a prince, as it were to marry might with his activity.

He hath had practice in Germany to be created king of Romans, made a sudden voyage with great expedition into the Low Countries, now is there again with better success than so soon was looked for.

Spain.

The king of Spain, Philip son to Charles the fifth, about sixty years of age, a prince of great understanding, subtle and aspiring, diligent and cruel. This king especially hath made his benefit of the time, where his last attempt on Portugal deserveth exact consideration, thereby as by the workmanship to know the master.

The first success he had was at St. Quintin, where he got a notable hand of the French; he sought to reduce the Low Countries to an absolute subjection.

He hath kept France in continual broil, where, by his pensions and the favour of the house of Guise, by means of the queen-mother in contemplation of her nieces, he beareth great sway. With the pope he is so linked, as he may do what him list, and dispose of that authority to serve his purposes: as he has gotten great authority in pretending to protect the church and religion.

He possesseth the one half of Italy, comprehending Sicily, and Sardinia, with Naples and Milan; the which estates do yield him little other profit, save the maintenance of so many Spaniards as he keepeth there always.

The duke of Florence relieth greatly upon him, as well in respect of the state of Siena, as of the ports he holdeth, and of his greatness. Lucca is under his protection. Genoa, the one faction at his devotion, with their galleys: at his pension is most of the greatest there.

Besides the Low Countries, he holdeth the Franch Comté, the best used of all his subjects, and Luxembourg: the West-Indies furnish him gold and silver, the which he consumeth in the wars of the Low Countries, and in pensions, and is greatly indebted, while he worketh on the foundation his father laid, to erect a monarchy, the which if he succeed in the conquest of Portugal, he is likely to achieve, unless death do cut him off.

He hath one son of the years of five by his last wife, two daughters by the French king's sister, two base sons.

He hath greatly sought the marriage of the queen's daughter of France, sister to his last wife, and cousin german removed.

His revenues are reckoned to amount to sixteen millions.

The chief in credit with him of martial men and for counsel are . . . .

He maketh account to have in continual pay 50000 soldiers.

He maintaineth galleys to the number of 140, whereof there are sixty in Portugal, the rest are at Naples, and other places. Now is on league with the Turk.

D. Antonio, elect king of Portugal, thrust out by the king of Spain, of forty-five years of age, a mild spirit, sober and discreet: he is now in France, where he hath levied soldiers, whereof part are embarked, hoping by the favour of that king, and the good-will the Portugals do bear him, to be restored again. He

holdeth the Torges, and the East-Indians yet remain well affected to him, a case of itself deserving the considering and relief of all other princes. Besides in his person, his election to be noted with the title he claimeth very singular, and seldom the like seen, being chosen of all the people; the great dangers he hath escaped likewise at sundry times.

The  
Turks re-  
venues are  
thought to  
be equal  
with his.

Portugal.



The king of Poland, Stephen Batoaye, a baron of Hungary, by the favour of the Turk, chosen king of the Pollacks, after the escape made by the French king; a prince of the greatest value and courage of any at this day, of competent years, sufficient wisdom, the which he hath shewed in the siege of Danke, and the wars with the Muscovite.

The Hungarians could be content to exchange the emperor for him. The Bohemians likewise with him in the stead of the other. He were like to attain to the empire, were there not that mortal enmity between those two nations as could not agree in one subjection.

Straight upon his election he married the Infant of Poland, somewhat in years and crooked, only to content the Pollacks, but never accompanied with her. He doth tolerate there all religions, himself beareth the mass, but is not thought to be a papist: he had a great part of his education in Turkey, after served the last emperor.

Frederick the second, of forty-eight years, king of Denmark and Norway; Denmark. his wife Sophia, daughter to Ulricke duke of Mechelebourg, by whom he hath six children, four daughters and two sons, Christianus and Ulricus, the eldest of five years of age.

The chiefest about him, Nicolas Cose his chancellor, in whose counsel he doth much repose.

He hath always 800 horse about his court, to whom he giveth ten dollars the month.

His father deceased in the year 1559, after which he had wars ten years space with the Swede, which gave him occasion to arm by sea. His navy is six great ships of 1500 ton, and fifteen smaller, ten galleys which sail to pass the Straits.

His revenues grow chiefly in customs, and such living as were in the hands of the abbeyes, and bishops, whereby he is greatly enriched: his chief haven is Copenhagen, where always his navy lieth.

His brother John duke of Holst in Jutland, married to the daughter of the duke of Inferior Saxony.

Magnus his other brother, bishop of Courland, married the daughter of the Muscovite's brother.

The chiefest wars that the king of Denmark hath is with Sweden, with whom now he hath peace. The duke of Holst is uncle to the king now reigning; they make often alliances with Scotland.

Sweden.

John king of Sweden, son of Gustavus.

This Gustavus had four sons, Erick, John, Magnus, Charles.

Erick married a soldier's daughter, by whom he had divers children, and died in prison.

John, now king, married the sister of Sigismond late king of Poland.

Magnus bestrought of his wits.

Charles married a daughter of the Palgrave.

Five daughters of Gustavus.

Katherine married to the earl of East-Friseland.

Anne to one of the Palgraves.

Cicilia to the marquis of Baden.

Sophia to the duke of Inferior Saxony.

Elizabeth to the duke of Meceleburg.

This prince is of no great force nor wealth, but of late hath increased his navigation by reason of the wars between him and the Dane, the which, the wars ceasing, they hardly maintain.

The Muscovite emperor of Russia, John Basil, of threescore years of age, in Muscovy. league and amity with no prince; always at wars with the Tartarians, and now with the Pollake.

He is advised by no council, but governeth altogether like a tyrant. He hath one son of thirty years of age. Not long sithence this prince deposed himself, and set in his place a Tartar, whom he removed again. Of late sent an ambassador to Rome, giving some hope to submit himself to that see. Their religion is nearest the Greek church, full of superstition and idolatry.



Mr. B A C O N's

DISCOURSE in the praise of his SOVEREIGN.

**N**O praise of magnanimity, nor of love, nor of knowledge, can intercept her praise, that planteth and nourisheth magnanimity by her example, love by her person, and knowledge by the peace and serenity of her times. And if these rich pieces be so fair unset, what are they set, and set in all perfection? Magnanimity no doubt consisteth in contempt of peril, in contempt of profit, and in meriting of the times wherein one liveth. For contempt of peril, see a lady that cometh to a crown after the experience of some adverse fortune, which for the most part extenuateth the mind, and maketh it apprehensive of fears. No sooner she taketh the scepter into her sacred hands, but she putteth on a resolution to make the greatest, the most important, the most dangerous that can be in a state; the alteration of Religion. This she doth, not after a sovereignty established and continued by sundry years, when custom might have bred in her people a more absolute obedience; when trial of her servants might have made her more assured whom to employ; when the reputation of her policy and virtue might have made her government redoubted. But at the very entrance of her reign, when she was green in authority, her servants scant known unto her, the adverse part not weakened, her own part not confirmed. Neither doth she reduce or reunite her realm to the religion of the states about her, that the evil inclination of the subject might be countervailed by the good correspondence in foreign parts: but contrariwise, she introduceth a religion exterminated and persecuted both at home and abroad. Her proceeding herein is not by degrees and by stealth, but absolute and at once. Was she encouraged thereto by the strength she found in leagues and alliances with great and potent confederates? No, but she found her realm in wars with her nearest and mightiest neighbours. She stood single and alone, and in league only with one, that after the people of her nation had made his wars, left her to make her own peace; one that could never be by any solicitation moved to renew the treaties; and one that since hath proceeded from doubtful terms of amity to the highest acts of hostility. Yet, notwithstanding the opposition so great, the support so weak, the season so improper; yet, I say, because it was a religion wherein she was nourished and brought up; a religion that freed her subjects from pretence of foreign powers, and indeed the true religion; she brought to pass this great work with success worthy so noble a resolution. See a queen, that when a deep and secret conspiracy was plotted against her sacred person, practised by subtle instruments, embraced by violent and desperate humours, strengthened and bound by vows and sacraments, and the same was revealed unto her (and yet the nature of the affairs required further ripening before the apprehension of any of the parties) was content to put herself into the guard of the divine providence, and her own prudence, to have some of the conspirators in her eyes, to suffer them to approach to her person, to take a petition of the hand that was conjured for her death; and that with such majesty of countenance, such mildness and serenity of gesture, such art and impression of words, as had been sufficient to have represt and bound the hand of a conspirator, if he had not been discovered. Lastly, see a queen, that when her realm was to have been invaded by an army, the preparation whereof was like the travel of an elephant, the provisions were infinite, the setting forth whereof was the terror and wonder of Europe; it was not seen that her cheer, her fashion, her ordinary manner was any thing altered: not a cloud of that storm did appear in that countenance wherein peace doth ever shine; but with excellent assurance, and advised security, she inspired her council, animated her nobility, redoubled the

courage



courage of her people, still having this noble apprehension, not only that she would communicate her fortune with them, but that it was she that would protect them, and not they her : which she testified by no less demonstration than her presence in camp. Therefore, that magnanimity that neither feareth greatness of alteration, nor the views of conspirators, nor the power of enemy, is more than herical.

For contempt of profit, consider her offers, consider her purchases. She hath reigned in a most populous, and wealthy peace, her people greatly multiplied, wealthily appointed, and singularly devoted. She wanted not the example of the power of her arms in the memorable voyages and invasions prosperously made and achieved by sundry her noble progenitors. She had not wanted pretences, as well of claim and right, as of quarrel and revenge. She hath reigned during the minority of some of her neighbour princes, and during the factions and divisions of their people upon deep and irreconcilable quarrels, and during the embracing greatness of some one that hath made himself so weak through too much burthen, as others are through decay of strength; and yet see her sitting as it were within the compass of her sands. Scotland, that doth as it were eclipse her island; the United Provinces of the Low Countries, which for wealth, commodity of traffick, affection to our nation, were most meet to be annexed to this crown; she left the possession of the one, and refused the sovereignty of the other : so that notwithstanding the greatness of her means, the justness of her pretences, and the rareness of her opportunity; she hath continued her first mind, she hath made the possessions which she received the limits of her dominions, and the world the limits of her name, by a peace that hath stained all victories.

For her merits, who doth not acknowledge, that she hath been as a star of most fortunate influence upon the age wherein she hath shined? Shall we speak of merit of clemency? or merit of beneficence? Where shall a man take the most proper and natural trial of her royal clemency? Will it best appear in the injuries that were done unto her before she attained the crown? or after she is seated in her throne? or that the commonwealth is incorporated in her person? Then clemency is drawn in question, as a dangerous encounter of justice and policy. And therefore, who did ever note, that she did relent (after that she was established in her kingdom) of the wrongs done unto her former estate? Who doth not remember how she did revenge the rigour and rudeness of her savior by a word, and that no bitter but salt, and such as shewed rather the excellency of her wit, than any impression of her wrong? Yea, and further, is it not so manifest, that since her reign, notwithstanding the principle that princes should not neglect, "That the Commonwealth's wrong is included in themselves;" yet when it is question of drawing the sword, there is ever a conflict between the justice of her place, joined with the necessity of her state and her royal clemency, which as a sovereign and precious balm continually distilleth from her fair hands, and falleth into the wounds of many that have incurred the offence of her law.

Now, for her beneficence, what kind of persons have breathed during her most happy reign, but have had the benefit of her virtues conveyed unto them? Take a view, and consider, whether they have not extended to subjects, to neighbours, to remote strangers, yea, to her greatest enemies. For her subjects, where shall we begin in such a maze of benefits as presenteth itself to remembrance? Shall we speak of the purging away of the dross of religion, the heavenly treasure; or that of money, the earthly treasure? The greater was touched before, and the latter deserveth not to be forgotten. For who believeth not (that knoweth any thing in matter of estate) of the great absurdities and frauds that arise of divorcing the legal estimation of moneys from the general, and (as I may term it) natural estimation of the metals, and again of the uncertainty and wavering values of coins, a very labyrinth of coustenages and abuse, yet such as great princes have made their profit of towards their own people. Pals on from the mint to the revenue and receipts : there shall you find, no raising of debts, notwithstanding the alteration of pikes and the usage of the times; but the



the over-value, besides a reasonable fine left for the relief of tenants and reward of servants; no raising of customs, notwithstanding her continual charges of setting to the sea; no extremity taken of forfeiture and penal laws, means used by some kings for the gathering of great treasures. A few forfeitures indeed, not taken to her own purse, but set over to some others for the trial only, whether gain could bring those laws to be well executed, which the ministers of justice did neglect. But after it was found, that only compassions were used, and the law never the nearer the execution, the course was straight suppressed and discontinued. Yea, there have been made laws more than one in her time for the restraint of the vexation of informers and promoters: nay, a course taken by her own direction for the repealing of all heavy and snared laws, if it had not been crossed by those to whom the benefit should have redounded. There shall you find, no new taxes, impositions, nor devices; but the benevolence of the subject freely offered by assent of parliament, according to the ancient rates, and with great moderation in assessment; and not so only, but some new forms of contribution offered likewise by the subject in parliament; and the demonstration of their devotion only accepted, but the thing never put in ure. There shall you find loans, but honourably answered and paid, as it were the contract of a private man. To conclude, there shall you find moneys levied upon fails of lands, alienation (though not of the ancient patrimony) yet of the rich and commodious purchases and perquisites of the crown only, because she will not be grievous and burthensome to the people. This treasure, so innocently levied, so honourably gathered and raised, with such tenderness to the subject, without any baseness or dryness at all; how hath it been expended and employed? Where be the wassell buildings, and the exorbitant and prodigal donatives, the sumptuous dissipations in pleasures, and vain ostentations which we find have exhausted the coffers of so many kings? It is the honour of her house, the royal remunerating of her servants, the preservation of her people and state, the protection of her suppliants and allies, the encounter, breaking, and defeating the enemies of her realm, that hath been the only pores and pipes whereby the treasure hath issued. Hath it been the sinews of a blessed and prosperous peace? Hath she bought her peace? Hath she lent the king of Spain money upon some cavillation not to be repeated, and so bought his favour? And hath she given large pensions to corrupt his council? No, but she hath used the most honourable diversion of troubles that can be in the world. She hath kept the fire from her own walls by seeking to quench it in her neighbours. That poor brand of the state of Burgundy, and that other of the crown of France that remaineth, had been in ashes but for the ready fountain of her continual benignity. For the honour of her house it is well known, that almost the universal manners of the times doth incline to a certain parsimony and dryness in that kind of expence: yet she retaineth the ancient magnificence, the allowance as full, the charge greater than in time of her father, or any king before: the books appear, the computation will not flatter. And for the remunerating and rewarding of her servants, and the attendance of the court, let a man cast and sum up all the books of gifts, fee-farms, leases and custodies that have passed her bountiful hands. Let him consider again what a number of commodious and gainful offices heretofore bestowed upon men of other education and profession, have been withdrawn and conferred upon her court. Let him remember, what a number of other gifts disguised by other names, but in effect as good as money given out of her coffers, have been granted by her; and he will conclude, that her royal mind is far above her means. The other benefits of her politick, clement, and gracious government towards the subjects are without number; the state of justice good, notwithstanding the great subtilty and humours affections of these times; the security of peace greater than can be described by that verse;

*Tutus hos clemm rura perambulat:*

*Nutrit rura Ceres, almaque Faustitas.*

Or that other,

*Condit quisque diem collibus in suis.*

The opulency of the peace such, as if you have respect (to take one sign for many



many) to the number of fair houses that have been built since her reign, as Augustus said, "that he had received the city of brick, and left it of marble;" so she may say, she received it a realm of cottages, and hath made it a realm of palaces: the state of traffick great and rich: the customs, notwithstanding their wars and interruptions, not fallen: many profitable trades, many honourable discoveries: and lastly, to make an end where no end is, the shipping of this realm so advanced and made so mighty and potent, as this island is become (as the natural site thereof deserved) the lady of the sea; a point of so high consequence, as it may be truly said, that the commandment of the sea is an abridgement or a quintessence of an universal monarchy.

This and much more hath she merited of her subjects: now to set forth the merit of her neighbours and the states about her. It seemeth the things have made themselves purveyors of continual, new, and noble occasions for her to shew them benignity, and that the fires of troubles abroad have been ordained to be as lights and tapers to make her virtue and magnanimity more apparent. For when that one, stranger born, the family of Guise, being as a hasty weed sprung up in a night, had spread itself to a greatness, not civil but seditious; a greatness, not of encounter of the ancient nobility, not of prehemency in the favour of kings, and not remis of affairs from kings; but a greatness of innovation in state, of usurpations of authority, of affecting of crowns; and that accordingly, under colour of consanguinity and religion, they had brought French forces into Scotland, in the absence of their king and queen being within their usurped tutelage; and that the ancient nobility of this realm, seeing the imminent danger of reducing that kingdom under the tyranny of foreigners and their faction, had, according to the good intelligence betwixt the two crowns, prayed her neighbourly succours: she undertook the action, expelled the strangers, restored the nobility to their degree. And lest any man should think her intent was to unneighbourly ill neighbours, and not to aid good neighbours, or that she was readier to restore what was invaded by others than to render what was in her own hands; see if the time provided not a new occasion afterwards, when through their own divisions (without the intermixture of strangers) her forces were again sought and required; she forsook them not, prevailed so far as to be possessed of the castle of Edinburgh, the principal strength of that kingdom, with peace, incontinently, without cunctations or cavillations (the preambles of a wavering faith) she rendered with all honour and security; and his person to safe and faithful hands; and so ever after during his minority continued his principal guardian and protector. In the time and between the two occasions of Scotland, when the same faction of Guise, covered still with pretence of religion, and strengthened by the desire of retaining government in the queen-mother of France, had raised and moved civil wars in that kingdom, only to extirpate the ancient nobility, by shocking them one against another, and to waste that realm as a candle which is lighted at both ends: and that those of the religion, being near of the blood royal, and otherwise of the greatest house in France, and great officers of the crown oppressed themselves only against their insolency, and to their supports called in her aid, giving unto them Newhaven for a place of security: see with what alacrity, in tender regard towards the fortune of that young king, whose name was used to the suppliants of his strength, she embraced the enterprise; and by their support and reputation the same party suddenly made great proceedings, and in conclusion made their peace as they would themselves: and although they joined themselves against her, and performed the parts rather of good patriots than of good confederates, and that after great demonstration of valour in her subjects. For as the French will to this day report, specially by the great mortality by the hand of God, and the rather because it is known she did never much affect the holding of that town to her own use; it was left, and her forces withdrawn, yet did that nothing diminish her merit of the crown, and namely of that party who recovered by it such strength, as by that and no other thing they subsisted long after: and lest that any should sinisterly and maliciously interpret that she did nourish those divisions; who knoweth not what faithful advice, continual and earnest solicitation she used by her ambassadors and ministers



## A DISCOURSE IN PRAISE

to the French kings successively, and to their mother, to move them to keep their edicts of pacification, to retain their own authority and greatness by the union of her subjects? Which counsel, if it had been as happily followed, as it was prudently and sincerely given; France at this day had been a most flourishing kingdom, which now is a theatre of misery. And now at last, when the said house of Guise, being one of the whips of God, whereof themselves are but the cords, and Spain the stock, had by their infinite aspiring practices wrought the miracles of states, to make a king in possession long established to play again for his crown, without any title of a competitor, without any invasion of a foreign enemy, yea, without any combination in substance of a blood royal or nobility; but only by furring in audacious persons into sundry government, and by making the populace of towns drunk with seditious preachers: and that king Henry the third, awaked by those pressing dangers, was compelled to execute the duke of Guise without ceremony; and yet nevertheless found the despair of so many persons embarked and engaged in that conspiracy, so violent, as the flame thereby was little assuaged; so that he was inforced to implore her aids and succours; consider how benign care and good correspondence she gave to the distressed requests of that king; and he soon after being, by the sacrilegious hand of a wretched Jacobin lifted up against the sacred person of his natural sovereign, taken away, not wherein the criminous blood of Guise, but the innocent blood which he hath often spilled by instigation of him and his house was revenged, and that this worthy gentleman who reigneth come to the crown; it will not be forgotten by so grateful a king, nor by so observing an age, how ready, how opportune and reasonable, how royal and sufficient her succours were, whereby she enlarged him at that time, and preferred him to his better fortune: and ever since in those tedious wars, wherein he hath to do with a Hydra, or a monster with many heads, she hath supported him with treasure, with forces, and with employment of one that she favoureth most. What shall I speak of the offering of Don Anthony to his fortune; a devoted catholic, only commended unto her by his oppressed state? What shall I say of the great storm of a mighty invasion, not of preparation, but in act, by the Turk upon the king of Poland, lately dissipated only by the beams of her reputation: which with the Grand Signor is greater than that of all the states of Europe put together? But let me rest upon the honourable and continual aid and relief she hath gotten to the distressed and desolate people of the Low Countries; a people recommended unto her by ancient confederacy and daily intercourse, by their cause so innocent, and their fortune so lamentable. And yet notwithstanding, to keep the conformity of her own proceeding never stained with the least note of ambition or malice, she refused the sovereignty of divers of those goodly provinces offered unto her with great instance, to have been accepted with great contentment both of her own people and others, and justly to be derived either in respect of the hostility of Spain, or in respect of the conditions, liberties and privileges of those subjects, and without charge, danger, and offence to the king of Spain and his partisans. She hath taken upon her their defence and protection without any further avail or profit unto herself, than the honour and merit of her benignity to the people that hath been pursued by their natural king only upon passion and wrath, in such sort that he doth consume his means upon revenge. And, having to verify that which I said, that her merits have extended to her greatest enemies; let it be remembered what hath passed in that matter between the king of Spain and her: how in the beginning of the troubles there, she gave and imparted to him faithful and friendly advice touching the course that was to be taken for quieting and appeasing of them. Then she interposed herself to most just and reasonable capitulations, wherein always should have been preserved unto him as ample interest, jurisdiction, and superiority in those countries as he in right could claim, or a prince well-minded would seek to have: and (which is the greatest point) she did by her advice, credit and policy, and all good means, interrupt and appeach, that the same people by despair should not utterly alien and distract themselves from the obedience of the king of Spain, and cast themselves into the arms of a stranger: inasmuch, that it is most true, that she did ever persuade



## OF QUEEN ELIZABETH.

persuade the duke of Anjou from that action, notwithstanding the affection she bare to that duke, and the obstinacy which she saw daily growing in the king of Spain. Lastly, to touch the mighty general merit of this queen, bear in mind, that her benignity and beneficence hath been as large as the oppression and ambition of Spain. For to begin with the church of Rome, that pretended apostolick see is become but a donative cell of the king of Spain; the vicar of Christ is become the king of Spain's chaplain; he parteth the coming in of the new pope, for the treasure of the old: he was wont to exclude but some two or three cardinals, and to leave the election of the rest; but now he doth include, and present directly some small number, all incapable and incompatible with the conclave, put in only for colour, except one or two. The states of Italy, they be like little quilllets of freehold being intermixt in the midst of a great honour or lordship: France is turned upside down, the subject against the king, cut and mangled infinitely, a country of Rodamonts and Royeleys, farmers of the ways: Portugal usurped by no other title than strength and vicinity: the Low Countries warred upon, because he seeketh, not to possess them, for they were possessed by him before, but to plant there an absolute and martial government, and to suppress their liberties: the like at this day attempted upon Arragon: the poor Indies, whereas the christian religion generally brought enfranchisement of slaves in all places where it came, in a contrary course are brought from free-men to be slaves, and slaves of most miserable condition: sundry trains and practices of this king's ambition in Germany, Denmark, Scotland, the east towns, are not unknown. Then it is her government, and her government alone, that hath been the scone and fort of all Europe, which hath lett this proud nation from over-running all. If any state be yet free from his factions erected in the bowels thereof; if there be any state wherein this faction is erected, that is not yet fired with civil troubles; if there be any state under his protection upon whom he usurpeth not; if there be any subject to him that enjoyeth moderate liberty, upon whom he tyrannizeth not: let them all know, it is by the mercy of this renowned queen, that standeth between them and their misfortunes. These be some of the beams of noble and radiant magnanimity, in contempt of peril which so manifestly, in contempt of profit which so many admire, and in merit of the world which so many include in themselves; set forth in my simplicity of speech with much loss of lustre, but with near approach of truth; as the sun is seen in the water.

Now to pass to the excellencies of her person: the view of them wholly and *A person.*

not severally, do make so sweet a wonder, as I fear to divide them. Again, nobility extracted out of the royal and victorious line of the kings of England; yea, both roses, white and red, do as well flourish in her nobility as in her beauty, as health, such as was like she should have that was brought forth by two of the most goodly princes of the world, in the strength of their years, in the heat of their love; that hath been injured neither with an over-liberal nor over-curious diet, that hath not been sustained by an umbratile life still under the roof, but strengthened by the use of the pure and open air, that still retaineth flower and vigour of youth. For the beauty and many graces of her presence, what colours are fine enough for such a portraiture? let no light poet be used for such a description, but the chafest and the royallest:

Of her gait; *Et vera incessu patuit Dea.*

Of her voice; *Nec vox hominem sonat.*

Of her eye; *Et laetos oculis afflavit bonores.*

Of her colour; *Indum sanguineo veluti violaverit oestro*

*Si quis ebur.*

Of her neck; *Et rosea cervice resulsi.*

Of her breast; *Veste sinus collecta fluentes.*

Of her hair; *Ambrosiaque comae divinum vertice odorem*

*Spiravere.*

If this be presumption, let him bear the blame that oweth the verses. What shall I speak of her rare qualities of compliment; which as they be excellent in the things themselves, so they have always besides somewhat of a queen: and



as queens use shadows and veils with their rich apparel; methink in all her qualities there is somewhat that flieth from ostentation, and yet inviteth the mind to contemplate her more?

*A sermone.*

What should I speak of her excellent gift of speech, being a character of the greatness of her conceit, the height of her degree, and the sweetness of her nature? What life, what edge is there in those words and glances wherewith at pleasure she can give a man long to think; be it that she mean to daunt him, to encourage him, or to amaze him! How admirable is her discourse, whether it be in learning, state, or love! what variety of knowledge; what rareness of conceit; what choice of words; what grace of utterance! Doth it not appear, that though her wit be as the adamant of excellencies, which draweth out of any book ancient or new, out of any writing or speech, the best; yet she refineth it, she enricheth it far above the value wherein it is received? And is her speech only that language which the child learneth with pleasure, and not those which the studious learn with industry? Hath she not attained, beside her rare eloquence in her own language, infinitely polished since her happy times, changes of her languages both learned and modern? so that she is able to negotiate with divers ambassadors in their own languages; and that with no disadvantage unto them, who I think cannot but have a great part of their wits distracted from their matters in hand to the contemplation and admiration of such perfections. What should I wander on to speak of the excellencies of her nature, which cannot endure to be looked on with a discontented eye: of the constancy of her favours, which maketh service as a journey by land, whereas the service of other princes is like an embarking by sea. For her royal wisdom and policy of government, he that shall note and observe the prudent temper she useth in admitting access; of the one side maintaining the majesty of her degree, and on the other side not prejudicing herself by looking to her estate through too few windows: her exquisite judgment in chusing and finding good servants (a point beyond the former) her profound discretion in assigning and appropriating every of them to their aptest employment: her penetrating sight in discovering every man's ends and drifts: her wonderful art in keeping servants in satisfaction, and yet in appetite: her inventing wit in contriving plots and overtures: her exact caution in censuring the propositions of others for her service: her foreseeing events: her usage of occasions: he that shall consider of these, and other things that may not well be touched, as he shall never cease to wonder at such a queen, so he shall wonder the less, that in so dangerous times, when wits are so cunning, humours extravagant, passions so violent, the corruptions so great, the dissimulations so deep, factions so many; she hath notwithstanding done such great things, and reigned in felicity.

*A fortuna.*

To speak of her fortune, that which I did reserve for a garland of her honour; and that is, that she liveth a virgin, and hath no children: so it is that which maketh all her other virtues and acts more sacred, more august, more divine. Let them leave children that leave no other memory in their times: *Brutum aeternitas, Jobelez*. Revolve in histories the memories of happy men, and you shall not find any of rare felicity but either he died childless, or his line spent soon after his death; or else was unfortunate in his children. Should a man have them to be slain by his vassals, as the *postumus* of Alexander the Great was? or to call them his impostumes, as Augustus Caesar called his? Peruse the catalogue: Cornelius Sylla, Julius Caesar, Flavius Vespasianus, Severus, Constantinus the Great, and many more. *Generare et liberti, humana: creare et operari, divina*. And therefore, this objection removed, let us proceed to take a view of her felicity.

*A felicitate.*

A mate of fortune she never took: only some adversity she passed at the first, to give her a quicker sense of the prosperity that should follow, and to make her more reposed in the divine providence. Well, she cometh to the crown: It was no small fortune to find at her entrance some such servants and counsellors as she then found. The French king, who at this time, by reason of the peace concluded with Spain, and of the interest he had in Scotland, might have proved a dangerous neighbour: by how strange an accident was he taken away?

The



The king of Spain, who, if he would have inclined to reduce the Low Countries by lenity, considering the goodly revenues which he drew from those countries, the great commodity to annoy her state from thence, might have made mighty and perilous matches against her repose; putteth on a resolution not only to use the means of those countries, but to spend and consume all his other means, the treasure of his Indies, and the forces of his ill-compacted dominions there and upon them. The Charles that rebelled in the North, before the duke of Norfolk's plot (which indeed was the strength and seal of that commotion) was fully ripe, brake forth and prevented their time. The king Sebastian of Portugal, whom the king of Spain would fain have persuaded that it was a devouter enterprise to purge Christendom, than to enlarge it (though I know some think that he did artificially nourish him in that voyage) is cut a-pieces with his army in Africa: then hath the king of Spain work cut out to make all things in readiness during the old cardinal's time for the conquest of Portugal; whereby his desire of invading of England was slackened and put off some years, and by that means was put in execution at a time for some respects much more to his disadvantage. And the same invasion, like and as if it had been attempted before, it had the time much more proper and favourable; so likewise had it in true discourse a better season afterwards: for, if it had been dissolved till time that the League had been better confirmed in France; which no doubt would have been, if the duke of Guise, who was the only man of worth on that side, had lived; and the French king durst never have laid hand upon him, had he not been animated by the English victory against the Spaniards precedent. And then, if some maritime town had been gotten into the hands of the League, it had been a great surety and strength to the enterprise. The popes, to consider of them whose course and policy it had been (knowing her majesty's natural clemency) to have temporized and dispensed with the Papists coming to church, that through the mask of their hypocrisy they might have been brought into places of government in the state and in the country: these, contrariwise, by the instigation of some fugitive scholars that advised him, not that was best for the see of Rome, but what agreed best with their eager humours and desperate states; discover and declare themselves so far by sending most seminaries, and taking of reconciliements, as there is now severity of laws introduced for the repressing of that sort, and men of that religion are become the suspect. What should I speak of so many conspiracies miraculously detected? the records shew the treasons: but it is yet hidden in many of them how they came to light. What should I speak of the opportune death of her enemies, and the wicked instruments towards her estate? Don Juan died not amiss: Darleigh, duke of Lenox, who was used as an instrument to divorce Scotland from the amity of England, died in no ill season: a man withdrawn indeed at that time to France; but not without great help. I may not mention the death of some that occur to mind: but still methink, they live that should live, and they die that should die. I would not have the king of Spain die yet; he is *seges gloriæ*: but when he groweth dangerous, or any other besides him; I am persuaded they will die. What should I speak of the fortunes of her armies, which, notwithstanding the inward peace of this nation, were never more renowned? What should I recount Leith and Newhaven for the honourable skirmishes and services? they are no blemish at all to the militia of England.

In the Low Countries; the Lammas day, the retreat of Ghent, the day of Zutphen, and the prosperous progress of this summer: the bravado in Portugal, and the honourable exploits in the aid of the French king, besides the memorable voyages in the Indies; and lastly, the good entertainment of the invincible navy, which was chafed till the chafers were weary, after infinite loss, without taking a cock-boat, without firing a sheep-cot, sailed on the mercies of the wind, and the discretion of their adventures, making a perambulation or pilgrimage about the northern seas, and ignobling many shores and points of land by shipwreck: and so returned home with scorn and dishonour much greater, than the terror and expectation of their setting forth.



## A D I S C O U R S E I N P R A I S E, etc.

These virtues and perfections, with so great felicity, have made her the honour of her times, the admiration of the world, the suite and aspiring of greatest kings and princes, who yet durst never have aspired unto her, but as their minds were raised by love.

But why do I forget, that words do extenuate and embase matters of so great weight? Time is her best commender, which never brought forth such a prince, whose imperial virtues contend with the excellency of her person: both virtues contend with her fortune: and both virtue and fortune contend with her fame.

*Orbis amor, famae carmen, celsique pupilla:*

*Tu decus omne tuis, tu decus ipsa tibi!*



**CERTAIN**



## CERTAIN OBSERVATIONS

Upon a libel published this present year, 1592,

INTITULE D,

*A declaration of the true causes of the great troubles, presupposed to be intended against the realm of England.*

**I**T were just and honourable for princes being in wars together, that howsoever they prosecute their quarrels and debates by arms and acts of hostility; yea, though the wars be such, as they pretend the utter ruin and overthrow of the forces and states one of another, yet they so limit their passions as they preserve two things sacred and inviolable; that is, the life and good name each of other. For the wars are no massacres and confusions; but they are the highest trials of right; when princes and states, that acknowledge no superior upon earth, shall put themselves upon the justice of God for the deciding of their controversies by such success, as it shall please him to give on either side. And as in the process of particular pleas between private men, all things ought to be ordered by the rules of civil laws; so in the proceedings of the war nothing ought to be done against the law of nations, or the law of honour; which laws have ever pronounced these two sorts of men; the one, conspirators against the persons of princes; the other, libellers against their good fame; to be such enemies of common society as are not to be cherished, no not by enemies. For in the examples of times, which were less corrupted, we find that when in the greatest heats and extremities of wars, there have been made offers of murderous and traitorous attempts against the person of a prince to the enemy, they have been not only rejected, but also revealed: and in like manner, when dishonourable mention hath been made of a prince before an enemy prince, by some that have thought therein to please his humour, he hath shewed himself, contrariwise, utterly distasted therewith, and been ready to contest for the honour of an enemy.

According to which noble and magnanimous kind of proceeding, it will be found, that in the whole course of her majesty's proceeding with the king of Spain, since the amity interrupted, there was never any project by her majesty, or any of her ministers, either moved or assented unto, for the taking away of the life of the said king: neither hath there been any declaration or writing of estate, no nor book allowed, wherein his honour hath been touched or taxed, otherwise than for his ambition; a point which is necessarily interlaced with her majesty's own justification. So that no man needeth to doubt, but that those wars are grounded, upon her majesty's part, upon just and honourable causes, which have so just and honourable a prosecution; considering it is a much harder matter when a prince is entered into wars, to hold respect then, and not to be transported with passion, than to make moderate and just resolutions in the beginnings.

But now if a man look on the other part, it will appear that, rather, as it is to be thought, by the solicitation of traitorous subjects (which is the only poison and corruption of all honourable war between foreigners) or by the presumption of his agents and ministers, than by the proper inclination of that king, there hath been, if not plotted and practised, yet at the least comforted, conspiracies against her majesty's sacred person; which nevertheless God's goodness hath used and turned, to shew by such miraculous discoveries into how near and precious



precious care and custody it hath pleased him to receive her majesty's life and preservation. But in the other point it is strange what a number of libellous and defamatory books and writings, and in what variety, with what art and cunning handled, have been allowed to pass through the world in all languages against her majesty and her government; sometimes pretending the gravity and authority of church stories to move belief; sometimes formed into remonstrances and advertisements of estate to move regard; sometimes presented as if were in tragedies of the persecutions of catholicks to move pity; sometimes contrived into pleasant pastquils and satires to move sport: so as there is no shape wherinto these fellows have not transformed themselves; nor no humour nor affection in the mind of man to which they have not applied themselves; thereby to innuate their untruths and abuses to the world. And indeed let a man look into them, and he shall find them the only triumphant lyes that ever were consulted by circumstances of time and place; consulted by contrariety in themselves, consulted by the winnells of infinite persons that live yet, and have had particular knowledge of the matters; but yet avouched with such asseveration, as if either they were fallen into that strange disease of the mind, which a wise writer describeth in these words, *sungunt simul creduntque*; or as if they had received it as a principal precept and ordinance of their seminaries, *audacter calumniari, semper aliquid haeret*; or as if they were of the race which in old time were wont to help themselves with miraculous lyes. But when the cause of this is entered into, namely, that there passeth over out of this realm a number of eager and unquiet scholars, whom their own turbulent and humorous nature presseth out to seek their adventures abroad; and that, on the other side, they are nourished rather in listening after news and intelligences, and in whisperings, than in any commendable learning; and after a time, when either their necessitous estate, or their ambitious appetites importune them, they fall on devising how to do some acceptable service to that side which maintaineth them; so as ever when their credit waxeth cold with foreign princes, or that their pensions are ill paid, or some preferment is in sight at which they level, straightways out cometh a libel, pretending thereby to keep in life the party, which within the realm is contrary to the state (wherein they are as wise as he, that thinketh to kindle a fire by blowing the dead ashes) when, I say, a man looketh into the cause and ground of this plentiful yield of libels, he will cease to marvel, considering the concurrence which is, as well in the nature of the seed; as in the travel of tilling and dressing, yea, and in the fitness of the season, for the bringing up of those infectious weeds.

But, to verify the saying of our Saviour, *non est discipulus super magistrum*; as they have sought to deprave her majesty's government in herself, so have they not forgotten to do the same in her principal servants and counsellors; thinking belike, that as the immediate invectives against her majesty do best satisfy the malice of the foreigner, so the slander and calumination of her principal counsellors agreed best with the humours of some malecontents within the realm; imagining also, that it was like they should be more scattered here, and freelier dispersed; and also should be less odious to those foreigners which were not merely partial and passionate, who have for the most part in detestation the traitorous libellings of subjects directly against their natural prince.

Amongst the rest in this kind, there hath been published this present year of 1592, a libel that giveth place to none of the rest in malice and untruths; though inferior to most of them in penning and style; the author having chosen the vein of a Lucianist, and yet being a counterfeit even in that kind. This libel is intituled, *A declaration of the true causes of the great troubles presupposed to be intended against the realm of England*; and hath a semblance as if it were bent against the doings of her majesty's ancient and worthy counsellor the lord Burleigh; whose carefulness and pains her majesty hath used in her counsels and actions of this realm for these thirty-four years space, in all dangerous times, and amidst many and mighty practices; and with such success, as our enemies are put still to their paper-shot of such libels as these; the memory of whom will remain in this land, when all these libels shall be extinct and forgotten;



ten; according to the Scripture, *Memoria iusti cum laudibus, at im piis nomen periret*. But it is more than evident, by the parts of the same book, that the author's malice was to her majesty and her government, as may especially appear in this, that he charged not his lordship with any particular actions of his private life (such power had truth) whereas the libels made against other counsellors have principally insisted upon that part: but hath only wrested and detorted such actions of state, as in times of his service have been managed; and depraving them, hath ascribed and imputed to him the effects that have followed; indeed, to the good of the realm, and the honour of her majesty, though sometimes to the provoking of the malice, but abridging of the power and means of desperate and incorrigible subjects.

All which slanders, as his lordship might justly despise, both for their manifest untruths, and for the baseness and obscurity of the author; so nevertheless, according to the moderation which his lordship useth in all things, never claiming the privilege of his authority, when it is question of satisfying the world, he hath been content that they be not passed over altogether in silence; whereupon I have, in particular duty to his lordship, amongst others that do honour and love his lordship, and that have diligently observed his actions, and in zeal of truth, collected, upon the reading of the said libel, certain observations, not in form of a just answer, lest I should fall into the error whereof Solomon speaketh thus, *Answer not a fool in his own kind, lest thou also be like him*; but only to discover the malice, and to reprove and convict the untruths thereof.

The points that I have observed upon the reading of this libel, are these following.

- I. Of the scope or drift of the libeller.
- II. Of the present estate of this realm of England, whether it may be truly avouched to be prosperous or afflicted.
- III. Of the proceedings against the pretended catholicks, whether they have been violent, or moderate, and necessary.
- IV. Of the disturbance of the quiet of Christendom, and to what causes it may be justly imputed.
- V. Of the cunning of the libeller, in palliation of his malicious invective against her majesty and the state, with pretence of taxing only the actions of the lord Burleigh.
- VI. Certain true general notes upon the actions of the lord Burleigh.
- VII. Of divers particular untruths and abuses dispersed through the libel.
- VIII. Of the height of impudency that these menare grown unto, in publishing and avouching untruths; with a particular recital of some of them for an assay.

#### I. Of the scope or drift of the libeller.

It is good advice, in dealing with cautious and malicious persons, whose speech is ever at distance with their meanings, *non quid dixerint, sed quo spectarent, videndum*: a man is not to regard what they affirm, or what they hold; but what they would convey under their pretended discovery, and what turn they would serve. It soundeth strangely in the ears of an English man, that the mines of the present state of England exceed them of former times whatsoever. One would straightway think with himself, doth this man believe what he saith? Or, not believing it, doth he think it possible to make us believe it? Surely, in my conceit, neither of both; but his end, no doubt, was to round the pope and the king of Spain in the ear, by seeming to tell a tale to the people of England. For such books are ever wont to be translated into divers languages; and, no doubt, the man was not so simple as to think he could persuade the people of England the contrary of what they taste and feel. But he thought he might better abuse the states abroad, if he directed his speech to them who could best convict him, and disprove him if he said untrue; so that as Livy saith in the like case, *Aetolos magis, coram quibus verba facerent, quam ad quos, peris habere*; That the Aetolians, in their tale, did more respect those who did overhear them, than those to whom they directed their speech: so in this matter this fellow cared



not to be counted a liar by all English, upon price of deceiving of Spain and Italy; for it must be understood, that it hath been the general practice of this kind of men many years, of the one side, to abuse the foreign estates, by making them believe that all is out of joint and ruinous here in England, and that there is great part ready to join with the invader; and on the other side, to make the evil subjects of England believe of great preparations abroad, and in great readiness to be put in act, and so to deceive on both sides: and this I take to be his principal drift. So again, it is an extravagant and incredible conceit, to imagine that all the conclusions and actions of estate which have passed during her majesty's reign, should be ascribed to one counsellor alone; and to such an one as was never noted for an imperious or over-ruling man; and to say, that though he carried them not by violence, yet he compassed them by device: there is no man of judgment that looketh into the nature of these times, but will easily descry that the wits of these days are too much refined for any man to walk invisible, or to make all the world his instruments; and therefore, no not in this point assuredly, the libeller spake as he thought; but this he foresaw, that the imputation of cunning doth breed suspicion, and the imputation of greatness and sway doth breed envy; and therefore finding where he was most wrong, and by whose policy and experience their plots were most crossed, the mark he shot at was to see whether he could heave at his lordship's authority, by making him suspected to the queen, or generally odious to the realm; knowing well enough for the one point, that there are not only jealousies, but certain revolutions in princes minds: so that it is a rare virtue in the rarest princes, to continue constant to the end in their favours and employments. And knowing for the other point, that envy ever accompanieth greatness, though never so well deserved: and that his lordship hath always marched a round and a real course in service; and as he hath not moved envy by pomp and ostentation; so hath he never extinguished it by any popular or insinuating carriage of himself: and this no doubt was his second drift.

A third drift was, to assay if he could supplant and weaken (by this violent kind of libelling, and turning the whole imputation upon his lordship) his resolution and courage; and to make him proceed more cautiously, and not so thoroughly and strongly against them; knowing his lordship to be a politick man, and one that hath a great stake to lose.

Lastly, lest, while I discover the cunning and art of this fellow, I should make him wiser than he was, I think a great part of this book was passion; *difficile est tacere, cum doleas*. The humours of these men being of themselves eager and fierce, have, by the abort and blasting of their hopes, been blinded and enraged. And surely this book is, of all that sort that have been written, of the meanest workmanship; being fraughted with sundry base scoffs, and cold amplifications, and other characters of despite; but void of all judgment or ornament.

II. Of the present estate of this realm of England, whether it may be truly avouched to be prosperous or afflicted.

The benefits of almighty God upon this land, since the time that in his singular providence he led as it were by the hand, and placed in the kingdom, his servant our queen Elizabeth, are such, as not in boasting, or in confidence of ourselves, but in praise of his holy name, are worthy to be both considered and confessed, yea, and registered in perpetual memory: notwithstanding, I mean not after the manner of a panegyric to extol the present time: it shall suffice only that those men, that through the gall and bitterness of their own heart have lost their taste and judgment, and would deprive God of his glory, and us of our senses, in affirming our condition to be miserable, and full of tokens of the wrath and indignation of God, be reproved.

If then it be true, that *nemo est miser, aut felix, nisi comparatus*; whether we shall (keeping ourselves within the compass of our own island) look into the memories of times past, or at this present time take a view of other states abroad in Europe, we shall find that we need not give place to the happiness either of ancestors or neighbours. For if a man weigh well all the parts of state and religion,



ligion, laws, administration of justice, policy of government, manners, civility, learning and liberal sciences, industry and manual arts, arms and provisions of wars for sea and land, treasure, traffic, improvement of the soil, population, honour and reputation, it will appear that, taking one part with another, the state of this nation was never more flourishing.

It is easy to call to remembrance, out of histories, the kings of England which have in more ancient times enjoyed greatest happiness; besides her majesty's father and grandfather, that reigned in rare felicity, as is fresh in memory. They have been king Henry I. king Henry II. king Henry III. king Edward I. king Edward III. king Henry V. All which have been princes of royal virtue, great felicity, and famous memory. But it may be truly affirmed, without derogation to any of these worthy princes, that whatsoever we find in libels, there is not to be found in the English chronicles, a king that hath, in all respects laid together, reigned with such felicity as her majesty hath done. For as for the first three Henries, the first came in too soon after a conquest; the second too soon after an usurpation; and the third too soon after a league, or barons war, to reign with security and contentation. King Henry I. also had unnatural wars with his brother Robert, wherein much nobility was consumed: he had therewithal tedious wars in Wales; and was not without some other seditions and troubles; as namely the great contestation of his prelates. King Henry II. his happiness was much deformed by the revolt of his son Henry, after he had associated him, and of his other sons. King Henry III. besides his continual wars in Wales, was after forty four years reign unquieted with intricate commotions of his barons; as may appear by the mad parliament held at Oxford, and the acts thereupon ensuing. His son Edward I. had a more flourishing time than any of the other; came to his kingdom at ripe years, and with great reputation, after his voyage into the Holy Land, and was much loved and obeyed, contrived his wars with great judgment: first having reclaimed Wales to a settled allegiance, and being upon the point of uniting Scotland. But yet I suppose it was more honour for her majesty to have so important a piece of Scotland in her hand, and the same with such justice to render up, than it was for that worthy king to have advanced in such forwardness the conquest of that nation. And for king Edward III. his reign was visited with much sickness and mortality; so as they reckoned in his days three several mortalities; one in the 22d year, another in the 35th year, and the last in the 43d year of his reign; and being otherwise victorious and in prosperity, was by that only cross more afflicted, than he was by the other prosperities comforted. Besides, he entered hardly; and again, according to the verse, *cedebant ultima primis*, his latter times were not so prosperous. And for King Henry V. as his success was wonderful, so he wanted continuance; being extinguished after ten years reign in the prime of his fortunes.

Now for her majesty, we will first speak of the blessing of continuance, as that i. *Continuance*. which wanted in the happiest of these kings; and is not only a great favour

of God unto the prince, but also a singular benefit unto the people; for that sentence of the Scripture, *misera natio cum multi sunt principes ejus*, is interpreted not only to extend to divisions and distractions in government, but also to frequent changes in succession: considering, that the change of a prince bringeth in many charges, which are harsh and unpleasant to a great part of the subjects. It appeareth then, that of the line of five hundred and fourscore years, and more, containing the number of twenty-two kings, God hath already prolonged her majesty's reign to exceed sixteen of the said two and twenty; and by the end of this present year (which God prosper) she shall attain to be equal with two more: during which time there have deceased four Emperors, as many French kings; twice so many bishops of Rome. Yea, every state in Christendom, except Spain, have received sundry successions. And for the king of Spain, he is waxed so infirm, and thereby so retired, as the report of his death serveth for every year's news: whereas her majesty (thanks be given to God) being nothing decayed in vigour of health and strength, was never more able to supply and sustain the weight of her affairs, and is, as far as standeth with the dignity of her majesty's royal state, continually to be seen, to the great comfort and heart ease of her people.

Secondly,



## 2. Health.

Secondly, we will mention the blessing of health: I mean generally of the people, which was wanting in the reign of another of these kings; which else deserved to have the second place in happiness, which is one of the great favours of God towards any nation. For as there be three scourges of God, war, famine, and pestilence; so are there three benedictions, peace, plenty, and health. Whereas therefore this realm hath been visited in times past with sundry kinds of mortalities (as pestilences, sweats, and other contagious diseases) it is so, that in her majesty's times, being of the continuance aforesaid, there was only, towards the beginning of her reign, some sickness, between June and February, in the city; but not dispersed into any other part of the realm, as was noted; which we call yet the great plague; because that though it was nothing so grievous and so sweeping as it hath been sundry times heretofore, yet it was great in respect of the health, which hath followed since; which hath been such (especially of late years) as we began to dispute and move questions of the causes whereunto it should be ascribed, until such time as it pleased God to teach us that we ought to ascribe it only to his mercy, by touching us a little this present year, but with a very gentle hand; and such as it hath pleased him since to remove. But certain it is, for so many years together, notwithstanding the great pestering of people in houses, the great multitude of strangers, and the sundry voyages by seas (all which have been noted to be causes of pestilence) the health universal of the people was never so good.

## 3. Peace.

The third blessing is that which all the politick and fortunate kings before recited have wanted; that is, peace: for there was never foreigner since her majesty's reign, by invasion or incursion of moment, that took any footing within the realm of England. One rebellion there hath been only, but such an one as was repressed within the space of seven weeks, and did not waste the realm so much as by the destruction or depopulation of one poor town. And for wars abroad, taking in those of Leith, those of Newhaven, the second expedition into Scotland, the wars of Spain, which I reckon from the year 86, or 87 (before which time neither had the king of Spain withdrawn his ambassadors here residing; neither had her majesty received into protection the United Provinces of the Low-Countries) and the aid of France; they have not occupied in time a third part of her majesty's reign; nor consumed past two of any noble house; whereof France took one, and Flanders another; and very few besides of quality or appearance. They have scarce moved down the overcharge of the people within the realm. It is therefore true, that the kings aforesaid, and others her majesty's progenitors, have been victorious in their wars, and have made many famous and memorable voyages and expeditions into sundry parts; and that her majesty, contrariwise, from the beginning, put on a firm resolution to content herself within those limits of her dominions which she received, and to entertain peace with her neighbour princes; which resolution she hath ever since (notwithstanding she hath had rare opportunities, just claims and pretences, and great and mighty means) sought to continue. But if this be objected to be the less honourable fortune; I answer, that ever amongst the heathen, who held not the expence of blood so precious as christians ought to do, the peaceable government of Augustus Caesar was ever as highly esteemed as the victories of Julius his uncle; and that the name of *pater patriae* was ever as honourable as that of *propagator imperii*. And this I add further, that during this inward peace of so many years in the actions of war before mentioned, which her majesty, either in her own defence or in just and honourable aids, hath undertaken, the service hath been such as hath carried no note of a people, whose militia were degenerated through long peace; but hath every way answered the ancient reputation of the English arms.

4. Plenty  
and  
wealth.

The fourth blessing is plenty and abundance: and first for grain and all victuals, there cannot be more evident proof of the plenty than this; that whereas England was wont to be fed by other countries from the east, it sufficeth now to feed other countries; so as we do many times transport and serve sundry foreign countries: and yet there was never the like multitude of people to eat it within the realm. Another evident proof thereof may be, that the good yields of corn which have been, together with some toleration of vent, hath of late time invited



and enticed men to break up more ground, and to convert it to tillage, than all the penal laws for that purpose made and enacted, could ever by compulsion effect. A third proof may be, that the prices of grain and victual were never of late years more reasonable. Now for arguments of the great wealth in all other respects, let the points following be considered.

There was never the like number of fair and stately houses as have been built and set up from the ground since her majesty's reign; insomuch, that there have been reckoned in one shire that is not great, to the number of thirty three, which have been all new built within that time; and whereof the meanest was never built for two thousand pounds.

There were never the like pleasures of goodly gardens and orchards, walks, pools, and parks, as do adorn almost every mansion-house.

There was never the like number of beautiful and costly tombs and monuments which are erected in sundry churches, in honourable memory of the dead.

There was never the like quantity of plate, jewels, sumptuous moveables, and stuff, as is now within the realm.

There was never the like quantity of waste and unprofitable ground, inned, reclaimed, and improved.

There was never the like husbanding of all sorts of grounds by fencing, manuring, and all kinds of good husbandry.

The towns were never better built nor peopled; nor the principal fairs and markets ever better customed or frequented.

The commodities and ease, of rivers cut by hand, and brought into a new channel; of piers that have been built; of waters that have been forced and brought against the ground, were never so many.

There was never so many excellent artificers, nor so many new handy-crafts used and exercised; nor new commodities made within the realm; sugar, paper, glass, copper, divers silks, and the like.

There was never such complete and honourable provision of horse, armour, weapons, ordinance of the war.

The fifth blessing hath been the great population and multitude of families. <sup>In-crease of people.</sup> increased within her majesty's days: for which point I refer myself to the proclamations of restraint of building in London, the inhibition of inmates of sundry cities, the restraint of cottages by act of parliament, and sundry other tokens of record of the surcharge of people.

Besides these parts of a government, blessed from God, wherein the condition <sup>6.</sup> of the people hath been more happy in her majesty's times, than in the times <sup>Reformation in religion.</sup> of her progenitors, there are certain singularities and particulars of her majesty's reign; wherein I do not say, that we have enjoyed them in a more ample degree and proportion than in former ages (as it hath fallen out in the points before mentioned) but such as were in effect unknown and untasted heretofore. As first, the purity of religion, which is a benefit inestimable, and was in the time of all former princes, until the days of her majesty's father of famous memory, unheard of. Out of which purity of religion have since ensued, beside the principal effect of the true knowledge and worship of God, three points of great consequence unto the civil estate.

One, the stay of a mighty treasure within the realm, which in foretimes was <sup>The special benefit</sup> drawn forth to Rome. Another, the dispersing and distribution of those revenues, amounting to a third part of the land of the realm, and that of the goodliest <sup>his estate</sup> and the richest sort, which heretofore was unprofitably spent in monasteries, into <sup>among us</sup> such hands as by whom the realm receiveth, at this day, service and strength; by the <sup>city of re-</sup> and many great houses have been set up and augmented. The third, the managing and enfranchising of the regal dignity from the recognition of a foreign superior. All which points, though begun by her father, and continued by her brother, were yet nevertheless, after an eclipse or intermission, restored and re-established by her majesty's self.

Secondly, the fineness of money: for as the purging away of the dross of <sup>re-fineness</sup> religion, the heavenly treasure, was common to her majesty, with her father and <sup>of money.</sup> her brother, so the purging of the base money, the earthly treasure, hath been



altogether proper to her majesty's own times; whereby our moneys bearing the natural estimation of the stamp or mark, both every man reſteth aſſured of his own value, and free from the loſſes and deceits which fall out in other places upon the riſing and falling of moneys.

The might of the navy. Thirdly, the might of the navy, and augmentation of the ſhipping of the realm; which, by poliſtick conſtitutions for maintenance of fiſhing, and the encouragement and aſſiſtance given to the undertakers of new diſcoveries and trades by ſea, is ſo advanced, as this iſland is become (as the natural ſite thereof deſerveth) the lady of the ſea.

Now, to paſs from the compariſon of time to the compariſon of place, we may find in the ſtates abroad cauſe of pity and compaſſion in ſome; but of envy or emulation in none; our condition being, by the good favour of God, not inferior to any.

Comparison of the ſtate of England with the ſtates abroad. Afflicted in France. The kingdom of France, which, by reaſon of the ſeat of the empire of the weſt, was wont to have the precedence of the kingdoms of Europe, is now fallen into thoſe calamities, that, as the prophet ſaith, *From the crown of the head to the ſole of the foot, there is no whole place.* The diviſions are ſo many, and ſo intricate, of proteſtants and catholicks, royaliſts and leaguers, Bourbonniſts and Lorrainiſts, patriots and Spaniſh; as it ſeemeth God hath ſome great work to bring to paſs upon that nation: yea, the nobility divided from the third eſtate, and the towns from the field. All which miſeries, truly to ſpeak, have been wrought by Spain and the Spaniſh faction.

Low Countries. The Low Countries, which were, within the age of a young man, the richeſt, the beſt peopled, and the beſt built plots of Europe, are in ſuch eſtate, as a country is like to be in, that hath been the ſeat of thirty years war: and although the ſea-provinces be rather increaſed in wealth and ſhipping than otherwiſe; yet they cannot but mourn for their diſtraction from the reſt of their body.

Portugal. The kingdom of Portugal, which of late times, through their merchant dizing and places in the Eaſt Indies, was grown to be an opulent kingdom, is now at the laſt, after the unfortunate journey of Afric, in that ſtate as a country is like to be, that is reduced under a foreigner by conqueſt; and ſuch a foreigner as hath his competitor in title, being a natural Portugal and no ſtranger; and having been once in poſſeſſion, yet in life; whereby his jealousy muſt neceſſarily be encreaſed, and through his jealousy their oppreſſion: which is apparent, by the carrying of many noble families out of their natural countries to live in exile, and by putting to death a great number of noblemen, naturally born to have been principal governors of their countries. Theſe are three afflicted parts of Chriſtendom; the reſt of the ſtates enjoy either proſperity, or tolerable condition.

Proſperous, as Scotland. The kingdom of Scotland, though at this preſent, by the good regiment and wiſe proceeding of the king, they enjoy good quiet; yet ſince our peace it hath paſſed through no ſmall troubles, and remaineth full of boiling and ſwelling humours; but like, by the maturity of the ſaid king every day encreaſing, to be reſſeſſed.

Poland. The kingdom of Poland is newly recovered out of great wars about an ambiguous election. And beſides, is a ſtate of that compoſition, that their king being elective, they do commonly chuſe rather a ſtranger than one of their own country: a great exception to the flouriſhing eſtate of any kingdom.

Sweden. The kingdom of Swedeland, beſides their foreign wars upon their confines, the Muſcovites and the Danes, hath been alſo ſubject to divers intestine tumults and mutations, as their ſtories do record.

Denmark. The kingdom of Denmark hath had good times, eſpecially by the good government of the late king, who maintained the profeſſion of the goſpel; but yet greatly giveth place to the kingdom of England, in climate, wealth, fertility, and many other points both of honour and ſtrength.

Italy. The eſtates of Italy, which are not under the dominion of Spain, have had peace equal in continuance with ours, except in regard of that which hath paſſed between them and the Turk, which hath ſorted to their honour and commendation; but yet they are ſo bridled and over-awed by the Spaniard, that poſſeſſeth the two principal members thereof, and that in the two extreme parts, as they be



be like quillets of frehold, being intermixed in the midst of a great honour or lordship; so as their quiet is intermingled, not with jealousy alone, but with restraint.

The states of Germany have had for the most part peaceable times; but yet Germany they yield to the state of England; not only in the great honour of a great kingdom (they being of a mean style and dignity) but also in many other respects both of wealth and policy.

The state of Savoy having been in the old duke's time governed in good prosperity, hath since, notwithstanding their new great alliance with Spain, whereupon they waxed insolent, to design to snatch up some piece of France, after the dishonourable repulse from the siege of Geneva, been often distressed by a particular gentleman of Dauphiny; and at this present day the duke feeleth, even in Piedmont beyond the mountains, the weight of the same enemy; who hath lately shut up his gates and common entries between Savoy and Piedmont.

So as hitherto I do not see but that we are as much bound to the mercies of God as any other nation; considering that the fires of dissension and oppression in some parts of Christendom, may serve us for lights to shew us our happiness; and the good estates of other places, which we do congratulate with them for, is such, nevertheless, as doth not stain and exceed ours; but rather doth still leave somewhat, wherein we may acknowledge an ordinary benediction of God.

Lastly, we do not much emulate the greatness and glory of the Spaniards; Spain, who having not only excluded the purity of religion, but also fortified against it, by their device of the inquisition, which is a bulwark against the entrance of the truth of God; having, in recompence of their new purchase of Portugal, lost a great part of their ancient patrimonies of the Low Countries (being of far greater commodity and value) or at the least holding part thereof in such sort as most of their other revenues are spent there upon their own; having lately, with much difficulty, rather smoothed and skinned over, than healed and extinguished the commotions of Aragon; having rather sowed troubles in France, than reaped assured fruit thereof unto themselves; having from the attempt of England received scorn and disreputation; being at this time with the states of Italy rather suspected than either loved or feared; having in Germany, and elsewhere, rather much practice, than any sound intelligence or amity; having no such clear success as they need object, and reproach the uncertainty thereof unto another nation; have in the end won a reputation rather of ambition than justice; and, in the pursuit of their ambition, rather of much enterprising than of fortunate achieving; and in their enterprising, rather of doing things by treasure and expence, than by forces and valour.

Now that I have given the reader a taste of England respectively, and in comparison of the times past, and of the states abroad, I will descend to examine the libeller's own divisions, whereupon let the world judge how easily and clean this ink, which he hath cast in our faces, is washed off.

The first branch of the pretended calamities of England, is the great and wonderful confusion which, he saith, is in the state of the church; which is subdivided again into two parts: the one, the persecutions against the catholics; the other, the discords and controversies amongst ourselves: the former of which two parts I have made an article by itself; wherein I have set down a clear and simple narration of the proceedings of state against that sort of subjects; adding, this by the way, that there are two extremities in state concerning the causes of faith and religion; that is to say, the permission of the exercises of more religions than one, which is a dangerous indulgence and toleration; the other is the entering and sitting into mens consciences when no overt scandal is given, which is rigorous and strainable inquisition; and I avouch the proceedings towards the pretended catholics, to have been a mean between these two extremities, rendering the demonstration thereof unto the aforesaid narration in the articles following.

Touching the divisions in our church, the libeller affirmeth that the protestantical Calvinism (for so it pleaseth him with very good grace to term the religion with us established) is grown contemptible, and detected of idolatry, hereby,

Concerning the controversy, lies in our and church.



and many other superstitious abuses, by a purified sort of professors of the same gospel. And this contention is yet grown to be more intricate, by reason of a third kind of gossellers called Brownists: who, being directed by the great favour of the unholy ghost, do expressly affirm, that the protestant church of England is not gathered in the name of Christ, but of Antichrist; and that if the prince or magistrate under her do refuse or defer to reform the church, the people may, without her consent, take the reformation into their own hands: and hereto he addeth the fanatical pageant of Hacket. And this is the effect of this accusation in this point.

For answer whereunto, first, it must be remembered that the church of God hath been in all ages subject to contentions and schisms: the tares were not sown but where the wheat was sown before. Our Saviour Christ delivered it for an ill note to have outward peace; saying, *when a strong man is in possession of the house* (meaning the devil) *all things are in peace*. It is the condition of the church to be ever under trials; and there are but two trials; the one of persecution, the other of scandal and contention; and when the one ceaseth, the other succeedeth: nay, there is scarce any one epistle of St. Paul's unto the churches, but containeth some reprehension of unnecessary and schismatical controversies. So likewise in the reign of Constantine the Great, after the time that the church had obtained peace from persecution, straight entered sundry questions and controversies, about no less matters than the essential parts of the faith, and the high mysteries of the Trinity. But reason teacheth us, that in ignorance and implied belief it is easy to agree, as colours agree in the dark: or if any country decline into atheism, then controversies wax dainty, because men do think religion scarce worth the falling out for; so as it is weak divinity to account controversies an ill sign in the church.

It is true that certain men, moved with an inconsiderate detestation of all ceremonies or orders, which were in use in the time of the Roman religion (as if they were without difference superstitious or polluted) and led with an affectionate imitation of the government of some protestant churches in foreign states; have sought by books and preaching, indiscreetly, and sometimes unduly, to bring in an alteration in the external rites and policy of the church; but neither hath the grounds of the controversies extended unto any point of faith; neither hath the pressing and prosecution exceeded, in the generality, the nature of some inferior contempts: so as they have been far from heresy and sedition, and therefore rather offensive than dangerous to the church or state.

And as for those which we call Brownists, being, when they were at the most, a very small number of very silly and base people, here and there in corners dispersed, they are now (thanks be to God) by the good remedies that have been used, suppressed and worn out; so as there is scarce any news of them. Neither had they been much known at all, had not Brown their leader written a pamphlet, wherein, as it came into his head, he inveighed more against logick and rhetoric, than against the state of the church (which writing was much read;) and had not also one Barrow (being a gentleman of a good house, but one that lived in London at ordinaries, and there learned to argue in table-talk, and so was very much known in the city and abroad) made a leap from a vain and libertine youth, to a preciseness in the highest degree; the strangeness of which alteration made him very much spoken of; the matter might long before have breathed out. And here I note an honesty and discretion in the libeller, which I note no where else; in that he did forbear to lay to our charge the sect of the Family of love; for, about twelve years since, there was creeping in, in some secret places of the realm, indeed a very great heresy, derived from the Dutch, and named as was before said; which since, by the good blessing of God, and by the good strength of our church, is banished and extinct. But so much we see, that the diseases wherewith our church hath been visited, whatsoever these men say, have either not been malign and dangerous, or else they have been as blisters in some small ignoble part of the body, which have soon after fallen and gone away. For such also was the phrenetical and fanatical (for I mean not to determine it) attempt of Hacket, who must needs have been thought a very dan-

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gerous heretick, that could never get but two disciples; and those, as it should seem, perished in their brain; and a dangerous commotion, that in so great and populous a city as London is, could draw but those same two fellows, whom the people rather laughed at as a may-game, than took any heed of what they did or said: so as it was very true that an honest poor woman said when she saw Hacker out of a window pass to his execution; said she to herself, "It was foretold that in the latter days there should come those that have deceived many; but in faith thou hast deceived but few."

But it is manifest untruth which the libeller setteth down, that there hath been no punishment done upon those which in any of the foresaid kinds have broken the laws, and disturbed the church and state; and that the edge of the law hath been only turned upon the pretended catholicks: for the examples are very many, where, according to the nature and degree of the offence, the correction of such offenders hath not been neglected.

These be the great confusions whereof he hath accused our church, which I refer to the judgment of an indifferent and understanding person, how true they be: my meaning is not to blanch or excuse any fault of our church; nor on the other side, to enter into commemoration, how flourishing it is in great and learned divines, or painful and excellent preachers; let men have the reproof of that which is amiss, and God the glory of that which is good. And so much for the first branch.

In the second branch, he maketh great musters and shews of the strength and multitude of the enemies of this state; declaring in what evil terms and correspondence we stand with foreign states, and how desolate and destitute we are of friends and confederates; doubting belike, how he should be able to prove and justify his assertion touching the present miseries, and therefore endeavouring at the least to maintain, that the good estate which we enjoy, is yet made somewhat bitter by reason of many terrors and fears. Whereupon entering into consideration of the security, wherein not by our own policy, but by the good providence and protection of God, we stand at this time, I do find it to be a security of that nature and kind, which Iphicrates the Athenian did commend; who being a commissioner to treat with the state of Sparta upon conditions of peace, and hearing the other side make many propositions touching security, interrupted them and told them, there was but one manner of security whereupon the Athenians could rest; which was, if the deputies of the Lacedæmonians could make it plain unto them, that, after these and these things parted withal, the Lacedæmonians should not be able to hurt them though they would. So it is with us, as we have not justly provoked the hatred or enmity of any other state, so howsoever that be, I know not at this time the enemy that hath the power to offend us though he had the will.

And whether we have given just cause of quarrel or offence, it shall be afterwards touched in the fourth article, touching the true causes of the disturbance of the quiet of Christendom, as far as it is fit to justify the actions of so high a prince upon the occasion of such a libel as this. But now concerning the power and forces of any enemy, I do find that England hath sometimes apprehended with jealousy the confederation between France and Scotland; the one being upon the same continent that we are, and breeding a soldier of puissance and courage, not much differing from the English: the other a kingdom very opulent, and thereby able to sustain wars, though at very great charge; and having a brave nobility; and being a near neighbour. And yet of this conjunction there never came any offence of moment: but Scotland was ever rather used by France as a diversion of an English invasion upon France, than as a commodity of a French invasion upon England. I confess also, that since the unions of the kingdom of Spain, and during the time the kingdom of France was in his entire, a conjunction of those two potent kingdoms against us might have been of some terror to us. But now it is evident, that the state of France is such as both those conjunctions are become impossible: it resteth that either Spain with Scotland should offend us, or Spain alone. For Scotland (thanks be to God) the amity and intelligence is so sound and secret between the two crowns, being strengthened



by consent in religion, nearness of blood, and continual good offices reciprocally on either side, as the Spaniard himself, in his own plot, thinketh it easier to alter and overthrow the present state of Scotland, than to remove and divide it from the army of England. So as it must be Spain alone that we should fear, which should seem, by reason of its spacious dominions, to be a great overmatch. The conceit whereof maketh me call to mind the resemblance of an ancient writer in physick; who, labouring to persuade that a physician should not doubt sometimes to purge his patient, though he seem very weak, entereth into a distinction of weakness; and saith, there is a weakness of spirit, and a weakness of body; the latter whereof he compareth unto a man that were otherwise very strong, but had a great pack on his neck, so great as made him double again, so as one might thrust him down with his finger: which similitude and distinction both may be fitly applied to matter of state; for some states are weak through want of means, and some weak through excess of burthen; in which rank I do place the state of Spain, which having out-compassed itself in embracing too much; and being itself but a barren seed-plot of soldiers, and much decayed and exhausted of men by the Indies, and by continual wars; and as to the state of their treasure, being indebted and engaged before such times as they waged so great forces in France (and therefore much more since) is not in brief an enemy to be feared by a nation seated, manned, furnished, and policed as is England.

Neither is this spoken by guests, for the experience was substantial enough, and of fresh memory in the late enterprize of Spain upon England: what time all that goodly shipping, which in that voyage was consumed, was complete; what time his forces in the Low-Countries were also full and entire, which now are wasted to a fourth part; what time also he was not entangled with the matters of France, but was rather like to receive assistance than impediment from his friends there, in respect of the great vigour wherein the league then was, while the duke of Guise then lived; and yet nevertheless this great preparation passed away like a dream. The invincible navy neither took any one barque of ours, neither yet once offered to land; but after they had been well beaten and chased, made a perambulation about the northern seas; ennobling many coasts with wrecks of mighty ships; and so returned home with greater derision than they set forth with expectation.

So as we shall not need much confederacies and succours (which he saith we want for breaking of the Spanish invasion) no, though the Spaniard should nestle in Britain, and supplant the French, and get some port-towns into their hands there (which is yet far off) yet shall he never be so commodiously seated to annoy us, as if he had kept the Low-Countries: and we shall rather fear him as a wrangling neighbour, that may trespass now and then upon some straggling ships of ours, than as an invader. And as for our confederacies, God hath given us both means and minds to tender and relieve the states of others: and therefore our confederacies are rather of honour than such as we depend upon. And yet nevertheless the apostata's and huguenots of France on the one part (for so he termeth the whole nobility in a manner of France, among the which a great part is of his own religion; which maintain the clear and unblemished title of their lawful and natural king against the seditious populace) and the beer-brewers and basket-makers of Holland and Zealand (as he also terms them) on the other, have almost bandied away between them all the duke of Parma's forces: and I suppose the very mines of the Indies will go low, or ever the one be ruined, or the other recovered. Neither again desire we better confederacies and leagues than Spain itself hath provided for us: *Non enim verbis foedera confirmantur, sed ipsam utilitatibus*. We know to how many states the king of Spain is odious and suspected; and for ourselves we have incensed none by our injuries, nor made any jealous of our ambition: these are in rules of policy the firmest contracts.

Let thus much be said in answer of the second branch, concerning the number of exterior enemies: wherein my meaning is nothing less than to attribute our felicity to our policy; or to nourish ourselves in the humour of security. But I hope we shall depend upon God and be vigilant; and then it will be seen to what end these false alarms will come.



In the third branch of the miseries of England, he taketh upon him to play the prophet, as he hath in all the rest played the poet; and will needs divine or prognosticate the great troubles whereunto this realm shall fall after her majesty's times; as if he that hath so singular a gift in lying of the present time and times past, had nevertheless an extraordinary grace in telling truth of the time to come; or, as if the effect of the pope's curses of England were upon better advice adjourned to those days. It is true, it will be misery enough for this realm (whensoever it shall be) to lose such a sovereign: but for the rest, we must repose ourselves upon the good-pleasure of God. So it is an unjust charge in the libeller to impute an accident of state to the fault of the government.

It pleaseth God sometimes, to the end to make men depend upon him the more, to hide from them the clear sight of future events; and to make them think that full of uncertainties which proveth certain and clear: and sometimes, on the other side, to cross mens expectations, and to make them full of difficulty and perplexity in that which they thought to be easy and assured. Neither is it any new thing for the titles of succession in monarchies to be at times less or more declared. King Sebastian of Portugal, before his journey into Africk, declared no successor. The cardinal, though he were of extreme age, and were much importuned by the king of Spain, and knew directly of six or seven competitors to that crown, yet he rather established I know not what interims, than decided the titles, or designed any certain successor. The dukedom of Ferrara is at this day, after the death of the prince that now liveth, uncertain in the point of succession: the kingdom of Scotland hath declared no successor. Nay, it is very rare in hereditary monarchies, by any act of state, or any recognition or oath of the people in the collateral line, to establish a successor. The duke of Orleans succeeded Charles VIII. of France, but was never declared successor in his time. Monsieur d'Anguleme also succeeded him, but without any designation. Sons of kings themselves oftentimes, through desire to reign and to prevent their time, wax dangerous to their parents: how much more cousins in a more remote degree? It is lawful, no doubt, and honourable, if the case require, for princes to make an establishment: but, as it was said, it is rarely practised in the collateral line. Trajan, the best emperor of Rome, of an heathen, that ever was, at what time the emperors did use to design successors, not so much to avoid the uncertainty of succession, as to the end, to have *participes curarum* for the present time, because their empire was so vast; at what time also adoptions were in use, and himself had been adopted; yet never designed a successor, but by his last will and testament, which also was thought to be suborned by his wife Plotina in the favour of her lover Adrian.

You may be sure that nothing hath been done to prejudice the right; and there can be but one right. But one thing I am persuaded of, that no king of Spain, nor bishop of Rome, shall umpire, or promote any beneficiary, or feodatory king, as they designed to do; even when the Scots queen lived, whom they pretended to cherish. I will not retort the matter of succession upon Spain, but use that modesty and reverence, that belongeth to the majesty of so great a king, though an enemy. And so much for this third branch.

The fourth branch he maketh to be touching the overthrow of the nobility and the oppression of the people: wherein though he may percase abuse the simplicity of any foreigner; yet to an Englishman, or any that heareth of the present condition of England, he will appear to be a man of singular audacity, and worthy to be employed in the defence of any paradox. And surely if he would needs have defaced the general state of England, at this time, he should in wisdom rather have made some friarly declamation against the excess of superfluity and delicacy of our times, than to have insisted upon the misery and poverty and depopulation of the land, as may sufficiently appear by that which hath been said.

But nevertheless, to follow this man in his own steps: first, concerning the nobility; it is true, that there have been in ages past, noblemen (as I take it) <sup>ing the</sup> <sup>state of the</sup> both of greater possessions and of greater command and sway than any are at nobility. this day. One reason why the possessions are less, I conceive to be, because certain



certain sumptuous veins and humours of expence (as apparel, gaming, maintaining of a kind of followers, and the like) do reign more than they did in times past. Another reason is, because noblemen now-a-days do deal better with their younger sons than they were accustomed to do heretofore, whereby the principal house receiveth many abatements. Touching the command, which is not indeed so great as it hath been, I take it rather to be a commendation of the time, than otherwise: for men were wont factiously to depend upon noblemen, whereof ensued many partialities and divisions, besides much interruption of justice, while the great ones did seek to bear out those that did depend upon them. So as the kings of this realm, finding long since that kind of commandment in noblemen unsafe unto their crown, and inconvenient unto their people, thought meet to restrain the same by provision of laws; whereupon grew the statute of retainers; so as men now depend upon the prince and the laws, and upon no other: a matter which hath also a congruity with the nature of the time, as may be seen in other countries; namely, in Spain, where their grandees are nothing so potent and so absolute as they have been in times past. But otherwise, it may be truly affirmed, that the rights and preheminencies of the nobility were never more duly and exactly preserved unto them, than they have been in her majesty's time; the precedence of knights given to the younger sons of barons; no *sub-pœna*'s awarded against the nobility out of the chancery, but letters; no answer upon oath, but upon honour: besides a number of other privileges in parliament, court and country. So likewise for the countenance of her majesty and the state, in lieutenantancies, commissions, offices, and the like, there was never a more honourable and graceful regard had of the nobility; neither was there ever a more faithful remembrancer and exacter of all these particular preheminencies unto them; nor a more diligent searcher and register of their pedigrees, alliances, and all memorials of honour, than that man, whom he chargeth to have overthrown the nobility; because a few of them by immoderate expence are decayed, according to the humour of the time, which he hath not been able to resist, nor not in his own house. And as for attainders, there have been in thirty five years but five of any of the nobility, whereof but two came to execution; and one of them was accompanied with restitution of blood in the children: yea all of them, except Westmoreland, were such, as, whether it were by favour of law or government, their heirs have, or are like to have, a great part of their possessions. And so much for the nobility.

Touching the oppression of the people, he mentioneth four points.

1. The consumption of people in the wars.
2. The interruption of traffick.
3. The corruption of justice.
4. The multitude of taxations.

Unto all which points there needeth no long speech. For the first (thanks be to God) the benediction of *Crescete* and *Multiplicamini*, is not so weak upon this realm of England, but the population thereof may afford such loss of men as were sufficient for the making our late wars, and were in a perpetuity, without being seen either in city or country. We read, that when the Romans did take cense of their people, whereby the citizens were numbered by the poll in the beginning of a great war; and afterwards again at the ending, there sometimes wanted a third part of the number: but let our muster books be perused (those, I say, that certify the number of all fighting men in every shire) of *vicesimo* of the queen; at what time, except a handful of soldiers in the Low-Countries, we expended no men in the wars; and now again, at this present time, and there will appear small diminution. There be many tokens in this realm rather of prels and surcharge of people, than of want and depopulation, which were before recited. Besides, it is a better condition of inward peace to be accompanied with some exercise of no dangerous war in foreign parts, than to be utterly without apprenticeship of war, whereby people grow effeminate and unpractised when occasion shall be. And it is no small strength unto the realm, that in these wars of exercise and not of peril, so many of our people are trained, and so many of our nobility and gentlemen have been made excellent leaders both by sea and land. As for that he objecteth, we have no pro-

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vision for soldiers at their return; though that point hath not been altogether neglected, yet I wish with all my heart, that it were more ample than it is; though I have read and heard, that in all estates, upon cashiering and disbanding of soldiers, many have endured necessity.

For the stopping of traffick; as I referred myself to the muster-books for the first, so I refer myself to the custom-books; upon this, which will not lye, and do make demonstration of no abatement at all in these last years, but rather of rising and increase. We know of many in London and other places that are within a small time greatly come up and made rich by merchandizing: and a man may speak within his compass, and affirm, that our prizes by sea have counterwailed any prizes upon us.

And as to the justice of this realm, it is true, that cunning and wealth have bred many suits and debates in law. But let those points be considered: the integrity and sufficiency of those which supply the judicial places in the queen's courts; the good laws that have been made in her majesty's time against informers and promoters, and for the bettering of trials; the example of severity which is used in the Star-Chamber, in oppressing forces and frauds; the diligence and stoutness that is used by justices of assizes, in encountering all countenancing and bearing of causes in the country, by their authorities and wisdom; the great favours that have been used towards copy-holders and customary tenants, which were in ancient times merely at the discretion and mercy of the Lord, and are now continually relieved from hard dealing, in chancery and other courts of equity: I say, let these and many other points be considered, and men will worthily conceive an honourable opinion of the justice of England.

Now to the points of levies and distributions of money, which he calleth exactions. First, very coldly, he is not abashed to bring in the gathering for Paul's steeple and the lottery trifles: whereof the former, being but a voluntary collection of that men were freely disposed to give, never grew to so great a sum as was sufficient to finish the work, for which it was appointed: and so I imagine, it was converted into some other use; like to that gathering which was for the fortifications of Paris; save that the gathering for Paris came to a much greater, though (as I have heard) no competent sum. And for the lottery, it was but a novelty devised and followed by some particular persons, and only allowed by the state, being as a gain of hazard: wherein if any gain was; it was because many men thought scorn, after they had fallen from their greater hopes, to fetch their odd money. Then he mentioneth loans and privy seals: wherein he sheweth great ignorance and indiscretion, considering the payments back again have been very good and certain, and much for her majesty's honour. Indeed, in other princes times it was not wont to be so. And therefore, though the name be not so pleasant, yet the use of them in our times have been with small grievance. He reckoneth also new customs upon cloths, and new impost upon wines. In that of cloths he is deceived; for the ancient rate of custom upon cloths was not raised by her majesty, but by queen Mary, a catholick queen: and hath been commonly continued by her majesty; except he mean the computation of the odd yards, which in strict duty was ever answerable, though the error were but lately looked into, or rather the toleration taken away. And to that of wines, being a foreign merchandize, and but a delicacy, and of those which might be forborn, there hath been some increase of imposition, which can rather make the price of wine higher, than the merchant poorer. Lastly, touching the number of subsidies, it is true, that her majesty, in respect of the great charges of her wars, both by sea and land, against such a lord of treasure as is the king of Spain; having for her part no Indies nor mines, and the revenues of the crown of England being such, as they les grate upon the people than the revenues of any crown or state in Europe, hath, by the assent of parliament, according to the ancient customs of this realm, received divers subsidies of her people, which as they have been employed upon the defence and preservation of the subject, not upon excessive buildings, nor upon immoderate donatives, nor upon triumphs and pleasures; or any the like veins of dissipation of treasure, which have been familiar to many kings: so have they



been yielded with great good will and cheerfulness, as may appear by other kinds of benevolence, presented to her likewise in parliament; which her majesty nevertheless hath not put in use. They have been taxed also and assessed with a very light and gentle hand; and they have been spared as much as may be, as may appear in that her majesty now twice, to spare the subject, hath sold of her own lands. But he that shall look into other countries, and consider the taxes, and tallages, and impositions, and assizes, and the like, that are every where in use, will find that the Englishman is the most master of his own valuation, and the least bitten in his purse of any nation of Europe. Nay even at this instant in the kingdom of Spain, notwithstanding the pioneers do still work in the Indian mines, the Jesuits most play the pioneers, and mine into the Spaniards purses; and, under the colour of a ghostly exhortation, contrive the greatest exaction that ever was in any realm.

Thus much, in answer of these calumniationes, I have thought good to note touching the present state of England; which state is such, that whosoever hath been an architect in the frame thereof, under the blessing of God, and the virtues of our sovereign, needed not to be ashamed of his work.

III. Of the proceedings against the pretended catholicks, whether they have been violent, or moderate and necessary.

I find her majesty's proceedings generally to have been grounded upon two principles: the one,

That consciences are not to be forced, but to be won and reduced by the force of truth, by the aid of time, and the use of all good means of instruction or persuasion: the other,

That causes of conscience when they exceed their bounds, and prove to be matter of faction, lose their nature; and that sovereign princes ought distinctly to punish the practice or contempt, though coloured with the pretences of conscience and religion.

According to these two principles, her majesty, at her coming to the crown, utterly disliking of the tyranny of the church of Rome, which had used by terror and rigour to seek commandment over mens faiths and consciences; although, as a prince of great wisdom and magnanimity, she suffered but the exercise of one religion, yet her proceedings towards the papists were with great lenity, expecting the good effects which time might work in them.

And therefore her majesty revived not the laws made in 28. and 35. of her father's reign, whereby the oath of supremacy might have been offered at the king's pleasure to any subject, though he kept his conscience never so modestly to himself; and the refusal to take the same oath, without farther circumstance, was made treason: but contrariwise, her majesty not liking to make windows into mens hearts and secret thoughts, except the abundance of them did overflow into overt and exprets acts and affirmations, tempered her law so, as it restraineth only manifest disobedience in impugning and impeaching advisedly and ambitiously her majesty's supreme power, and maintaining and exolling a foreign jurisdiction. And as for the oath, it was altered by her majesty into a more grateful form; the harshness of the name, and appellation of supreme head was removed; and the penalty of the refusal thereof turned into a disablement to take any promotion, or to exercise any charge; and yet that with a liberty of being revelted therein, if any man shall accept thereof during his life.

But after many years toleration of a multitude of factious papists, when Pius Quintus had excommunicated her majesty, and the bill of excommunication was published in London, whereby her majesty was in a sort proscribed, and all her subjects drawn upon pain of damnation from her obedience; and that thereupon, as upon a principal motive or preparative, followed the rebellion in the north; yet notwithstanding, because many of those evil humours were by that rebellion partly purged, and that she feared at that time no foreign invasion, and much less the attempts of any within the realm not backed by some foreign succours from without; she contented herself to make a law against that special case of bringing in, or publishing of bulls or the like instruments; whereunto was added



a prohibition, not upon pain of treason, but of an inferior degree of punishment, against bringing in of *Agnus Dei's*, hallowed beads, and such other merchandize of Rome, as are well known not to be any essential part of the Roman religion, but only to be used in practice as love-tokens, to enchant and bewitch the people's affections from their allegiance to their natural sovereign. In all other points her majesty continued her former lenity.

But when, about the twentieth year of her reign, she had discovered in the king of Spain an intention to invade her dominions, and that a principal point of the plot was to prepare a party within the realm that might adhere to the foreigner; and that the seminaries began to blossom and to send forth daily priests and professed men, who should by vow, taken at shrift, reconcile her subjects from her obedience; yea, and bind many of them to attempt against her majesty's sacred person; and that, by the poison they spread, the humours of most papists were altered, and that they were no more papists in custom, but papists in treasonable faction: then were there new laws made for the punishment of such as should submit themselves to reconcilements or renunciations of obedience. For it is to be understood, that this manner of reconciliation in confession, is of the same nature and operation that the bull itself was of, with this only difference, that whereas the bull absolved the subjects from their obedience at once, the other doth it one by one. And therefore it is both more secret, and more insinuating into the conscience, being joined with no less matter than an abjuration from mortal sin. And because it was a treason carried in the clouds, and in wonderful secrecy, and came seldom to light; and that there was no presumption thereof so great as the recusants to come to divine service, because it was set down by their decrees, that to come to church before reconciliation, was to live in schism; but to come to church after reconciliation, was absolutely heretical and damnable: therefore there were added new laws, containing a punishment pecuniary against the recusants, not to enforce consciences, but to ensnare those of whom it rested indifferent and ambiguous, whether they were reconciled or no? For there is no doubt, but if the law of recusancy (which is challenged to be so extreme and rigorous) were thus qualified, that any recusant that shall voluntarily come in and take his oath, that he or she were never reconciled, should immediately be discharged of the penalty and forfeiture of the law; they would be so far from liking well of that mitigation, as they would cry out it was made to entrap them. And when, notwithstanding all this provision, this poison was dispersed so secretly, as that there were no means to stay it, but to restrain the merchants that brought it in; then was there lastly added a law, whereby such seditious priests of the new erection were exiled; and those that were at that time within the land shipped over, and so commanded to keep hence upon pain of treason.

This hath been the proceeding with that sort, though intermingled not only with sundry examples of her majesty's grace, towards such as in her wisdom she knew to be papists in conscience, and not in faction; but also with an extraordinary mitigation towards the offenders in the highest degree convicted by law, if they would protest, that in case this realm should be invaded with a foreign army, by the pope's authority, for the catholick cause (as they term it) they would take part with her majesty, and not adhere to her enemies.

And whereas he saith no priest dealt in matter of state (Ballard only excepted) it appeareth by the records of the confession of the said Ballard, and sundry other priests, that all priests at that time generally were made acquainted with the invasion then intended, and afterwards put in act; and had received instructions not only to move an expectation in the people of a change, but also to take their vows and promises in shrift to adhere to the foreigner; insomuch that one of their principal heads vaunted himself in a letter of the device, saying, that it was a point the council of England would never dream of, who would imagine that they should practise with some nobleman to make him head of their faction; whereas they took a course only to deal with the people, and them so severally, as any one apprehended should be able to appeal no more than himself, except the priests, who he knew would reveal nothing that was uttered in



## OBSERVATIONS ON A LIBEL.

confession : so innocent was this princely priestly function, which this man taketh to be but a matter of conscience, and thinketh it reason it should have free exercise throughout the land.

IV. Of the disturbance of the quiet of Christendom ; and to what causes it may be justly assigned.

It is indeed a question (which those that look into matters of state do well know to fall out very often ; though this libeller seemeth to be more ignorant thereof) whether the ambition of the more mighty state, or the jealousy of the less mighty state, is to be charged with breach of amity. Hereof as there may be many examples, so there is one so proper unto the present matter, as though it were many years since, yet it seemeth to be a parable of these times, and namely of the proceedings of Spain and England.

The states then, which answered to these two now, were Macedon and Athens. Consider therefore the resemblance between the two Philips, of Macedon and Spain : he of Macedon aspired to the monarchy of Greece, as he of Spain doth of Europe ; but more apparently than the first, because that design was discovered in his father Charles V. and so left him by descent ; whereas Philip of Macedon was the first of the kings of that nation which fixed so great conceits in his breast. The course which this king of Macedon held was not so much by great armies and invasions (though these wanted not when the case required) but by practice, by sowing of factions in states, and by obliging sundry particular persons of greatness. The state of opposition against his ambitious proceedings was only the state of Athens, as now is the state of England against Spain. For Lacedaemon and Thebes were both low, as France is now ; and the rest of the states of Greece were, in power and territories, far inferior. The people of Athens were exceedingly affected to peace, and weary of expence. But the point which I chiefly make the comparison, was that of the orators, which were as counsellors to a popular state ; such as were sharpest sighted, and looked deepest into the projects and spreading of the Macedonians (doubting still that the fire, after it licked up the neighbour states, and made itself opportunity to pass, would at last take hold of the dominions of Athens with so great advantages, as they should not be able to remedy it) were ever charged both by the declarations of the king of Macedon, and by the imputation of such Athenians as were corrupted to be of his faction, as the kindlers of troubles, and disturbers of the peace and leagues : but as that party was in Athens too mighty, so as it discountenanced the true counsels of the orators, and so bred the ruin of that state, and accomplished the ends of that Philip : so it is to be hoped that in a monarchy, where there are commonly better intelligences and resolutions than in a popular state, those plots as they are detected already, so they will be resisted and made frustrate.

But to follow the libeller in his own course ; the sum of that which he delivereth concerning the imputation, as well of the interruption of the amity between the crowns of England and of Spain, as the disturbance of the general peace of Christendom, unto the English proceedings, and not to the ambitious appetites of Spain, may be reduced into three points.

1. Touching the proceeding of Spain and England towards their neighbour states.

2. Touching the proceeding of Spain and England between themselves.

3. Touching the articles and conditions which it pleaseth him, as it were in the behalf of England, to pen and propose for the treating and concluding of an universal peace.

In the first he discovereth how the king of Spain never offered molestation, neither unto the states of Italy, upon which he confineth by Naples and Milan ; neither unto the states of Germany, unto whom he confineth by a part of Burgundy and the Low Countries ; nor unto Portugal, till it was devolved to him in title, upon which he confineth by Spain : but contrariwise, as one that had in precious regard the peace of Christendom, he designed from the beginning to turn his whole forces upon the Turk. Only he confesseth, that agreeable to his devotion, which apprehended as well the purging of Christendom from heresies,



as the enlarging thereof upon the infidels, he was ever ready to give succours unto the French kings against the Huguenots, especially being their own subjects: whereas, on the other side, "England (as he affirmeth) hath not only sowed troubles and dissensions in France and Scotland (the one their neighbour upon the continent; the other divided only by the narrow seas) but also hath actually invaded both kingdoms. For as for the matters of the Low Countries, they belong to the dealings which have passed by Spain."

In answer whereof, it is worthy the consideration how it pleased God in that king to cross one passion by another; and namely, that passion which might have proved dangerous unto all Europe (which was his ambition) by another which was only hurtful to himself and his own, which was wrath and indignation towards his subjects of the Netherlands. For after that he was settled in his kingdom, and freed from some fear of the Turk, revolving his father's design in aspiring to the monarchy of Europe, casting his eye principally upon the two potent kingdoms of France and England; and remembering how his father had once promised unto himself the conquest of the one; and how himself by marriage had lately had some possession of the other; and seeing that diversity of religion was entered into both these realms; and that France was fallen unto princes weak, and in minority; and England unto the government of a lady, in whom he did not expect that policy of government, magnanimity, and felicity, which since he hath proved, concluded (as the Spaniards are great waiters upon time, and ground their plots deep) upon two points; the one to profess an extraordinary patronage and defence of the Roman religion, making account thereby to have factions in both kingdoms: in England a faction directly against the state; in France a faction that did consent indeed in religion with the king, and therefore at first shew should seem improper to make a party for a foreigner. But he foresaw well enough that the king of France should be forced (to the end to retain peace and obedience) to yield in some things to those of the religion, which would undoubtedly alienate the fiery and more violent sort of papists; which preparation in the people, added to the ambition of the family of Guise (which he nourished for an instrument) would in the end make a party for him against the state, as since it proved, and might well have done long before, as may well appear by the mention of league and associations, which is above twenty-five years old in France.

The other point he concluded upon, was, that his Low Countries was the aptest place both for ports and shipping, in respect of England, and for situation in respect of France, having goodly frontier towns upon that realm, and joining also upon Germany, whereby they might receive in at pleasure any forces of Almaines, to annoy and offend either kingdom. The impediment was the inclination of the people, which, receiving a wonderful commodity of trades out of both realms, especially of England; and having been in ancient league and confederacy with our nation, and having been also homagers unto France, he knew would be in no wise disposed to either war: whereupon he resolved to reduce them to a martial government, like unto that which he had established in Naples and Milan; upon which suppressing of their liberties ensued the defection of those provinces. And about the same time the reformed religion found entrance in the same countries; so as the king, enflamed with the resistance he found in the first part of his plots, and also because he might not dispense with his other principle in yielding to any toleration of religion; and withal expecting a shorter work of it than he found, became passionately bent to reconquer those countries; wherein he hath consumed infinite treasure and forces. And this is the true cause, if a man will look into it, that hath made the king of Spain so good a neighbour; namely, that he was so entangled with the wars of the Low Countries as he could not intend any other enterprise. Besides, in enterprising upon Italy, he doubted first the displeasure of the see of Rome, with whom he meant to run a course of strict conjunction; also he doubted it might invite the Turk to return. And for Germany, he had a fresh example of his father, who, when he had annexed unto the dominions which he now possesseth, the empire of Almain, nevertheless sunk in that enterprise; whereby



he perceived that the nation was of too strong a composition for him to deal withal; though not long since, by practice, he could have been contented to snatch up in the East the country of Embden. For Portugal, first, the kings thereof were good sons to the see of Rome; next, he had no colour of quarrel or pretence; thirdly, they were officious unto him: yet if you will believe the Genevese (who otherwise writeth much to the honour and advantage of the kings of Spain) it seemeth he had a good mind to make himself a way into that kingdom, seeing that for that purpose (as he reporteth) he did artificially nourish the young king Sebastian in the voyage of Affric, expecting that overthrow which followed.

As for his intention to war upon the infidels and Turks, it maketh me think what Francis Guicciardine, a wise writer of history, speaketh of his great grandfather, making a judgment of him as historiographers use; "that he did always a mask, and veil his appetites with a demonstration of a devout and holy intention to the advancement of the church and the publick good." His father also, when he received advertisement of the taking of the French king, prohibited all ringings, and bonfires, and other tokens of joy; and said, those were to be reserved for victories upon infidels: on whom he meant never to war. Many a cruzado hath the bishop of Rome granted to him and his predecessors upon that colour, which all have been spent upon the effusion of christian blood: and now this year the levies of Germans, which should have been made underhand for France, were coloured with the pretence of war upon the Turk; which the princes of Germany deservyng, not only brake the levies, but threatened the commissions to hang the next that should offer the like abuse: so that this form of dissembling is familiar, and as it were hereditary to the king of Spain.

And as for his succours given to the French king against the protestants, he could not chuse but accompany the pernicious counsels which still he gave to the French kings, of breaking their edicts, and admitting of no pacification, but pursuing their subjects with mortal war, with some offer of aids; which having promised, he could not but in some small degree perform; whereby also the subject of France (namely the violent papist) was insured to depend upon Spain. And so much for the king of Spain's proceedings towards other states.

Now for ours: and first touching the point wherein he chargeth us to be the authors of troubles in Scotland and France; it will appear to any that have been well informed of the memoirs of these affairs, that the troubles of those kingdoms were indeed chiefly kindled by one and the same family of the Guise: a family (as was partly touched before) as particularly devoted now for many years together to Spain, as the order of the Jesuits is. This house of Guise, having of late years extraordinarily flourished in the eminent virtue of a few persons, whose ambition nevertheless was nothing inferior to their virtue; but being of a house, notwithstanding, which the princes of the blood of France reckoned but as strangers, aspired to a greatness more than civil and proportionable to their cause, whereforever they had authority: and accordingly, under colour of consanguinity and religion, they brought into Scotland in the year 1559, and in the absence of the king and queen, French forces in great numbers; whereupon the ancient nobility of that realm, seeing the imminent danger of reducing that kingdom under the tyranny of strangers, did pray (according to the good intelligence between the two crowns) her majesty's neighbourly forces. And so it is true that the action being very just and honourable, her majesty undertook it, expelled the strangers, and restored the nobility to their degrees, and the state to peace.

After, when certain noblemen of Scotland of the same faction of Guise had, during the minority of the king, possessed themselves of his person, to the end to abuse his authority many ways; and namely, to make a breach between Scotland and England; her majesty's forces were again, in the year 1582, by the king's best and truest servants fought and required: and with the forces of her majesty prevailed so far, as to be possessed of the castle of Edinburgh, the principal part of that kingdom; which nevertheless her majesty incontinently with all honour and sincerity restored, after she had put the king into good and faithful hands: and so, ever since, in all the occasions of intestine troubles, whereunto that nation hath been ever subject, she hath performed unto the king all possible good offices, and such as he doth with all good affection acknowledge.



The same house of Guise, under colour of alliance, during the reign of Francis the second, and by the support and practice of the queen-mother; who, desiring to retain the regency under her own hands during the minority of Charles the ninth, used those of Guise as a counterpoise to the princes of the blood, obtained also great authority in the kingdom of France: whereupon, having raised and moved civil wars under pretence of religion, but indeed to enfeeble and depress the ancient nobility of that realm; the contrary part, being compounded of the blood royal, and the greatest officers of the crown, opposed themselves only against their insolency; and to their aids called in her majesty's forces, giving them for security the town of Newhaven: which, nevertheless, when as afterwards, having by the reputation of her majesty's confederation made their peace in effect as they would themselves, they would, without observing any conditions that had passed, have had it back again; then indeed it was held by force, and so had been long, but for the great mortality which it pleased God to send amongst our men. After which time, so far was her majesty from seeking to sow or kindle new troubles, as continually, by the solicitation of her ambassadors, she still persuaded with the kings, both Charles IX. and Henry III. to keep and observe their edicts of pacification, and to preserve their authority by the union of their subjects: which counsel, if it had been as happily followed as it was prudently and sincerely given, France had been at this day a most flourishing kingdom; which is now a theatre of misery: and now in the end, after that the ambitious practices of the same house of Guise had grown to that ripeness, that gathering farther strength upon the weaknels and mis-government of the said king Henry III. he was fain to execute the duke of Guise without ceremony at Blois. And yet, nevertheless, so many men were embarked and engaged in that conspiracy, as the flame thereof was nothing assuaged; but, contrariwise, that king Henry grew distressed, so as he was enforced to implore the succours of England from her majesty, though no way interested in that quarrel, nor any way obliged for any good offices she had received of that king; yet she accorded the same: before the arrival of which forces, the king being by a sacrilegious Jacobine murdered in his camp near Paris, yet they went on and came in good time for the assistance of the king which now reigneth; the justice of whose quarrel, together with the long continued amity and good intelligence, which her majesty had with him, hath moved her majesty from time to time to supply with great aids; and yet she never, by any demand, urged upon him the putting into her hands of any town or place: so as upon this that hath been said let the reader judge, whether hath been the more just and honourable proceeding, and the more free from ambition and passion towards other states; that of Spain, or, that of England. Now let us examine the proceedings reciprocal between themselves.

Her majesty, at her coming to the crown, found her realm entangled with the wars of France and Scotland, her nearest neighbours; which wars were grounded only upon the Spaniards' quarrel; but in the pursuit of them had lost England the town of Calais: which, from the twenty-first of king Edward III. had been possessed by the kings of England. There was a meeting near Bourdeaux, towards the end of queen Mary's reign, between the commissioners of France, Spain, and England, and some overture of peace was made; but broke off upon the article of the restitution of Calais. After queen Mary's death, the king of Spain, thinking himself discharged of that difficulty (though in honour he was no less bound to it than before) renewed the like treaty, wherein her majesty concurred: so as the commissioners for the said princes met at Chateau Cambraisi, near Cambray. In the proceedings of which treaty, it is true, that at the first the commissioners of Spain, for form and in demonstration only, pretended to stand firm upon the demand of Calais: but it was discerned, indeed, that the king's meaning was, after some ceremonies and perfunctory insisting thereupon, to grow apart to a peace with the French, excluding her majesty, and so to leave her to make her own peace, after her people had made his wars. Which covert dealing being politicly looked into, her majesty had reason, being newly invested in her kingdom, and of her own inclination being affected to



peace, to conclude the same with such conditions as she might; and yet the king of Spain in his dissimulation had so much advantage as she was fain to do it in a treaty apart with the French; whereby to one that is not informed of the counsels and treaties of state, as they passed, it should seem to be a voluntary agreement of her majesty, whereto the king of Spain would not be party: whereto indeed he left her no other choice; and this was the first assay or earnest penny of that king's good affection to her majesty.

About the same time, when the king was solicited to renew such treaties and leagues as had passed between the two crowns of Spain and England, by the lord Cobham, sent unto him, to acquaint him with the death of queen Mary; and afterwards by Sir Thomas Chaloner and Sir Thomas Chamberlain, successively ambassadors resident in his Low Countries; who had order, divers times, during their charge, to make overtures thereof, both unto the king, and certain principal persons about him; and lastly, those former motions taking no effect, by Viscount Montacute and Sir Thomas Chamberlain, sent into Spain in the year 1560; no other answer could be had or obtained of the king, but that the treaties did stand in as good force to all intents as new ratification could make them. An answer strange at that time, but very conformable to his proceedings since: which belike even then were closely smothered in his own breast. For had he not at that time had some hidden alienation of mind, and design of an enmity towards her majesty, so wise a king could not be ignorant, that the renewing and ratifying of treaties between princes and states do add great life and force, both of assurance to the parties themselves, and countenance and reputation to the world besides; and have for that cause been commonly and necessarily used and practised.

In the message of Viscount Montacute, it was also contained, that he should crave the king's counsel and assistance, according to amity and good intelligence, upon a discovery of certain pernicious plots of the house of Guise, to annoy this realm by the way of Scotland: wherunto the king's answer was so dark and so cold, that nothing could be made of it, till he had made an exposition of it himself by effects, in the express restraint of munition to be carried out of the Low Countries unto the siege of Leith; because our nation was to have supply thereof from thence. So as in all the negotiations that passed with that king, still her majesty received no satisfaction, but more and more suspicious and bad tokens of evil affection.

Soon after, when upon that project, which was disclosed before the king had resolved to disannul the liberties and privileges unto his subjects of the Netherlands anciently belonging; and to establish amongst them a martial government, which the people, being very wealthy, and inhabiting towns very strong and defensible by fortifications both of nature and the hand, could not endure, there followed the defection and revolt of those countries. In which action, being the greatest of all those which have passed between Spain and England, the proceeding of her majesty hath been so just, and mingled with so many honourable regards, as nothing doth so much clear and acquit her majesty, not only from passion, but also from all dishonourable policy. For first, at the beginning of the troubles, she did impart unto him faithful and sincere advice of the course that was to be taken for the quieting and appealing them; and expressly forewarned both himself and such as were in principal charge in those countries, during the wars, of the danger like to ensue if he held so heavy a hand over that people; lest they should cast themselves into the arms of a stranger. But finding the king's mind so exulcerated as he rejected all counsel that tended to mild and gracious proceeding, her majesty nevertheless gave not over her honourable resolution (which was, if it were possible to reduce and reconcile those countries unto the obedience of their natural sovereign the king of Spain; and if that might not be, yet to preserve them from alienating themselves to a foreign lord, as namely unto the French, with whom they much treated; and amongst whom the enterprise of Flanders was ever propounded as a mean to unite their own civil dissensions) but patiently temporising, expected the good effect which time might breed. And whensoever the states grew into  
extremities



extremities of despair, and thereby ready to embrace the offer of any foreigner, then would her majesty yield them some relief of money, or permit some supply of forces to go over unto them; to the end, to interrupt such violent resolution: and still continued to mediate unto the king some just and honourable capitulations of grace and accord, such as whereby always should have been preferred unto him such interest and authority as he in justice could claim, or a prince moderately minded would seek to have. And this course she held interchangeably, seeking to mitigate the wrath of the king, and the despair of the countries, till such time as after the death of the duke of Anjou (into whose hands, according to her majesty's prediction, but against her good liking, they had put themselves) the enemy pressing them, the United Provinces were received into her majesty's protection: which was after such time, as the king of Spain had discovered himself, not only an implacable lord to them, but also a professed enemy unto her majesty; having actually invaded Ireland, and designed the invasion of England. For it is to be noted, that the like offers which were then made unto her majesty, had been made to her long before: but as long as her majesty conceived any hope, either of making their peace, or entering her own with Spain, she would never hearken thereunto. And yet now, even at last, her majesty retained a singular and evident proof to the world of her justice and moderation, in that she refused the inheritance and sovereignty of those goodly provinces; which by the states, with much instance, was pressed upon her; and being accepted, would have wrought greater contentment and satisfaction both to her people and theirs, being countries for the site, wealth, commodity of traffick, affection to our nation, obedience of the subjects (well used) most convenient to have been annexed to the crown of England, and with all one charge, danger, and offence of Spain; only took upon her the defence and protection of their liberties: which liberties and privileges are of that nature, as they may justly esteem themselves but conditional subjects to the king of Spain, more justly than Arragon: and may make her majesty as justly esteem the ancient confederacies and treaties with Burgundy to be of force rather with the people and nation, than with the line of the duke; because it was never an absolute monarchy. So as, to sum up her majesty's proceedings in this great action, they have but this, that they have sought first to restore them to Spain, then to keep them from strangers, and never to purchase them to herself.

But during all that time, the king of Spain kept one tenor in his proceedings towards her majesty, breaking forth more and more into injuries and contempt: her subjects trading into Spain have been many of them burned; some cast into the galleys; others have died in prison, without any other crimes committed, but upon quarrels picked upon them for their religion here at home. Her merchants, at the sack of Antwerp, were divers of them spoiled and put to their ransoms, though they could not be charged with any part-taking; neither, upon the complaint of Doctor Wilson and Sir Edward Horsey, could any redress be had. A general arrest was made by the duke of Alba of Englishmen both goods and persons, upon pretence that certain ships, stayed in this realm laden with goods and money of certain merchants of Genoa, belonged to that king: which money and goods was afterwards, to the uttermost value, restored and payed back; whereas our men were far from receiving the like justice on their side. Dr. Man, her majesty's ambassador, received, during his legation, sundry indignities; himself being removed out of Madrid, and lodged in a village, as they are accustomed to use the ambassadors of Moors: his son and steward forced to assist at a mass with tapers in their hands; besides sundry other contumelies and reproaches. But the spoiling or damning of a merchant, vexation of a common subject, dishonour of an ambassador, were rather but demonstrations of ill disposition, than effects, if they be compared with actions of state, wherein he and his ministers have sought the overthrow of this government. As in the year 1569, when the rebellion in the north part of England brake forth; who but the duke of Alba (then the king's lieutenant in the Low-Countries) and Don Gueres of Espes, then his ambassador lieger here, were discovered to be chief instruments and practisers; having conspired with the



the duke of Norfolk at the same time, as was proved at the same duke's condemnation, that an army of twenty thousand men should have landed at Harwich, in aid of that part, which the said duke had made within the realm, and the said duke having spent and employed one hundred and fifty thousand crowns in that preparation.

Not contented thus to have consorted and assisted her majesty's rebels in England, he procured a rebellion in Ireland; arming and sending thither in the year 1579 an arch-rebel of that country, James Fitz-Mortice, which before was fled. And truly to speak, the whole course of molestation, which her majesty hath received in that realm by the rising and keeping on of the Irish, hath been nourished and fomented from Spain; but afterwards most apparently, in the year 1580, he invaded the same Ireland with Spanish forces, under an Italian colonel, by name San Josepho, being but the forerunners of a greater power; which by treaty between him and the pope should have followed, but that by the speedy defeat of those former, they were discouraged to pursue the action: which invasion was proved to be done by the king's own orders, both by the letters of secretary Escovedo, and of Guerres to the king; and also by divers other letters, wherein the particular conferences were set down concerning this enterprize between cardinal Riario the pope's legate, and the king's deputy in Spain, touching the general, the number of men, the contribution of money, and the manner of the prosecuting of the action, and by the confession of some of the chiefest of those that were taken prisoners at the fort; which act being an act of apparent hostility, added unto all the injuries aforesaid, and accompanied with a continual receipt, comfort, and countenance, by audiences, pensions, and employments, which he gave to traitors and fugitives, both English and Irish; as Westmoreland, Paget, Englefield, Balinghams, and numbers of others; did sufficiently justify and warrant that pursuit of revenge, which (either in the spoil of Carthage and San Domingo in the Indies, by Mr. Drake, or in the undertaking the protection of the Low-Countries when the earl of Leicester was sent over) afterwards followed. For before that time her majesty, though she stood upon her guard in respect of the just cause of jealousy, which the sundry injuries of that king gave her; yet had entered into no offensive action against him. For both the voluntary forces which Don Antonio had collected in this realm, were by express commandment restrained, and offer was made of restitution to the Spanish ambassador of such treasure as had been brought into this realm, upon proof that it had been taken by wrong; and the duke of Anjou was (as much as could stand with the near treaty of a marriage which then was very forward between her majesty and the said duke) diverted from the enterprize of Flanders.

But to conclude this point: when that, some years after, the invasion and conquest of this land, intended long before, but through many crosses and impediments, which the king of Spain found in his plots, deferred, was in the year 1588 attempted; her majesty, not forgetting her own nature, was content at the same instant to treat of a peace; not ignorantly, as a prince that knew not in what forwardness his preparations were (for she had discovered them long before) nor fearfully, as may appear by the articles whereupon her majesty in that treaty stood, which were not the demands of a prince afraid; but only to spare the shedding of Christian blood, and to shew her constant desire to make her reign renowned, rather by peace than victories: which peace was on her part treated sincerely, but on his part (as it should seem) was but an abuse; thinking thereby to have taken us more unprovided: so that the duke of Parma, not liking to be used as an instrument in such a case, in regard of his particular honour, would sometimes in treating interlace, that the king his master meant to make his peace with his sword in his hand. Let it then be tryed, upon an indifferent view of the proceedings of England and Spain, who it is that fisheth in troubled waters, and hath disturbed the peace of Christendom, and hath written and described all his plots in blood.

There follow the articles of an universal peace, which the libeller, as a commissioner for the estate of England, hath propounded, and are these:

First,



First, that the king of Spain should recall such forces, as, of great compassion to the natural people of France, he hath sent thither to defend them against a relapsed Huguenot.

Secondly, that he suffer his rebels of Holland and Zealand quietly to possess the places they hold, and to take unto them all the rest of the Low-Countries also; conditionally, that the English may still keep the possession of such port towns as they have, and have some half a dozen more annexed unto them.

Thirdly, that the English rovers might peaceably go to his Indies, and there take away his treasure and his Indies also.

And these articles being accorded (he saith) might follow that peace which passeth all understanding, as he calleth it in a scurrile and prophane mockery of the peace which Christians enjoy with God, by the atonement which is made by the blood of Christ, whereof the Apostle saith *that it passeth all understanding*. But these his articles are sure mistaken, and indeed corrected are briefly these:

1. That the king of France be not impeached in reducing his rebels to obedience.

2. That the Netherlands be suffered to enjoy their ancient liberties and privileges, and so forces of strangers to be withdrawn, both English and Spanish.

3. That all nations may trade into the East and West Indies; yea, discover and occupy such parts as the Spaniard doth not actually possess, and are not under civil government, notwithstanding any donation of the pope.

V. Of the cunning of the libeller, in palliation of his malicious invectives against her majesty and the state, with pretence of taxing only the actions of the lord Burleigh.

I cannot rightly call this point cunning in the libeller, but rather good will to be cunning; without skill indeed or judgment: for finding that it hath been the usual and ready practice of seditious subjects to plant and bend their invectives and clamours, not against the sovereigns themselves, but against some such as had grace with them, and authority under them, he put in ure his learning in a wrong and unproper case. For this hath some appearance to cover undutiful invecives, when it is used against favourites or new upstarts, and sudden-risen counsellors: but when it shall be practised against one that hath been counsellor before her majesty's time, and hath continued longer counsellor than any other counsellor in Europe; one that must needs have been great if it were but by surviving alone, though he had no other excellency; one that hath passed the degrees of honour with great travel and long time, which quencheth always envy, except it be joined with extreme malice; then it appeareth manifestly to be but a brick-wall at tennis to make the defamation and hatred rebound from the counsellor upon the prince. And assuredly they be very simple to think to abuse the world with those sluffs; since every child can tell the fable, that the wolf's malice was not to the shepherd, but to his dog. It is true, that these men have altered their tune twice or thrice: when the match was in treating with the duke of Anjou, they spake honey as to her majesty; all the gall was uttered against the earl of Leicester: but when they had gotten heart upon expectation of the invasion, they changed style, and disclosed all the venom in the world immediately against her majesty: what new hope hath made them return to their Sinon's note, in teaching Troy how to save itself, I cannot tell. But in the mean time they do his lordship much honour: for the more despitely they inveigh against his lordship, the more reason hath her majesty to trust him, and the realm to honour him. It was wont to be a token of scarce a good liegeman when the enemy spoiled the country, and left any particular mens houses or fields unwaisted.

VI. Certain true general notes upon the actions of the lord Burleigh.

But above all the rest, it is a strange fancy in the libeller that he maketh his lordship to be the *primum mobile* in every action without distinction; that to him her majesty is accountant of her resolutions; that to him the earl of Leicester and Mr. Secretary Walsingham, both men of great power, and of great wit



and understanding, were but as instruments: whereas it is well known, that as to her majesty, there was never a counsellor of his lordship's long continuance that was so applicable to her majesty's princely resolutions; endeavouring always, after faithful propositions and remonstrances, and these in the best words, and the most grateful manner, to rest upon such conclusions, as her majesty in her own wisdom determineth, and them to execute to the best: so far hath he been from contestation, or drawing her majesty into any his own courses. And as for the forenamed counsellors and others, with whom his lordship hath conferred in her majesty's service, it is rather true that his lordship, out of the greatness of his experience and wisdom, and out of the coldness of his nature, hath qualified generally all hard and extreme courses, as far as the service of her majesty, and the safety of the state, and the making himself compatible with those with whom he served, would permit: so far hath his lordship been from inciting others, or running a full course with them in that kind. But yet it is more strange that this man should be so absurdly malicious, as he should charge his lordship, not only with all actions of state, but also with all the faults and vices of the times; as, if curiosity and emulation have bred some controversies in the church; though (thanks be to God) they extend but to outward things; as, if wealth, and the cunning of wits have brought forth multitudes of suits in law; as, if excess in pleasures, and in magnificence, joined with the unfaithfulness of servants, and the greediness of moneyed men, have decayed the patrimony of many noblemen, and others; that all these, and such like conditions of the time, should be put on his lordship's account; who hath been, as far as to his place appertaineth, a most religious and wise moderator in church-matters to have unity kept; who with great justice hath dispatched infinite causes in law that have orderly been brought before him: and for his own example, may say that which few men can say; but was sometimes said by Cephalus, the Athenian so much renowned in Plato's works; who having lived near to the age of an hundred years, and in continual affairs and business, was wont to say of himself; "That he never sued any, neither had been sued by any;" who by reason of his office hath preserved many great houses from overthrow, by relieving sundry extremities towards such as in their minority have been circumvented; and towards all such as his lordship might advise, did ever persuade sober and limited expence. Nay, to make proof farther of his contented manner of life, free from suits and covetousness; as he never sued any man, so did he never raise any rent, or put out any tenant of his own: nor ever gave consent to have the like done to any of the queen's tenants; matters singularly to be noted in this age.

But however, by this fellow, as in a false artificial glass, which is able to make the best face deformed, his lordship's doings be set forth; yet let his proceedings (which be indeed his own) be indifferently weighed and considered; and let men call to mind, that his lordship was never a violent and transported man in matters of state, but ever respectful and moderate; that he was never man in his particular a breaker of necks; no heavy enemy, but ever placable and mild; that he was never a brewer of holy water in court; no dallier, no abuser, but ever real and certain; that he was never a bearing man, nor carrier of causes, but ever gave way to justice and course of law; that he was never a glorious wilful proud man, but ever civil and familiar, and good to deal withal; that in the course of his service, he hath rather sustained the burthen, than sought the fruition of honour or profit; scarcely sparing any time from his cares and travels to the sustentation of his health; that he never had, nor sought to have for himself and his children, any penny-worth of lands or goods that appertained to any attainted of any treason, felony, or otherwise; that he never had, or sought any kind of benefit by any forfeiture to her majesty; that he was never a factious commender of men, as he that intended any ways to besiege her, by bringing in men at his devotion; but was ever a true reporter unto her majesty of every man's deserts and abilities; that he never took the course to unquiet or offend, no nor exasperate her majesty, but to content her mind, and mitigate her displeasure; that he ever bare himself reverently and without scandal in matters



of religion, and without blemish in his private course of life. Let men, I say, without passionate malice, call to mind these things; and they will think it reason, that though he be not canonized for a saint in Rome, yet he is worthily celebrated as *Pater patriæ* in England; and though he be libelled against by fugitives, yet he is prayed for by a multitude of good subjects; and lastly, though he be envied whilst he liveth, yet he shall be deeply wanted when he is gone. And assuredly many princes have had many servants of trust, name, and sufficiency; but where there have been great parts, there hath often wanted temper of affection; where there have been both ability and moderation, there have wanted diligence and love of travail; where all three have been, there have sometimes wanted faith and sincerity; where some few have had all these four, yet they have wanted time and experience: but where there is a concurrence of all these, there is no marvel, though a prince of judgment be constant in the employment and trust of such a servant.

#### VII. Of divers particular untruths and abuses dispersed through the libel.

The order which this man keepeth in his libel, is such, as it may appear, that he meant but to empty some note-book of the matters of England, to bring in (whatsoever came of it) a number of idle jests, which he thought might fly abroad; and intended nothing less than to clear the matters he handled by the light of order and distinct writing. Having therefore in the principal points, namely, the second, third, and fourth articles, ranged his scattering and wandering discourse into some order, such as may help the judgment of the reader, I am now content to gather up some of his by-matters and straggling untruths, and very briefly to censure them.

Pag. 9. he saith, that his lordship could neither by the greatness of his beads, creeping to the cros, nor exterior shew of devotion before the high altar, find his entrance into high dignity in queen Mary's time. All which is a mere fiction at pleasure; for queen Mary bare that respect unto him, in regard of his constant standing for her title, as she desired to continue his service; the refusal thereof growing from his own part: he enjoyed nevertheless all other liberties and favours of the time; save only that it was put into the queen's head that it was dangerous to permit him to go beyond the sea, because he had a great wit of action, and had served in so principal a place; which nevertheless after, with cardinal Pool, he was suffered to do.

Pag. *eadem* he saith, Sir Nicholas Bacon, that was lord keeper, was a man of exceeding crafty wit; which sheweth that this fellow in his slanders is no good marks-man, but throweth out his words of defaming without all level. For all the world noted Sir Nicholas Bacon to be a man plain, direct, and constant, without all finesse and doubleness; and one that was of the mind that a man in his private proceedings and estate, and in the proceedings of state, should rest upon the soundness and strength of his own courses, and not upon practice to circumvent others, according to the sentence of Solomon; *Vir prudens advertit ad gressus suos, stultus autem divertit ad dolos*: inasmuch that the bishop of Ross, a subtle and observing man, said of him, that he could fasten no words upon him, and that it was impossible to come within him, because he offered no play; and the queen-mother of France, a very politick prince, said of him, That he should have been of the council of Spain, because he despised the occurrences, and rested upon the first plot; so that if he were crafty, it is hard to say who is wile.

Pag. 10. he saith, That the lord Burleigh, in the establishment of religion, in the beginning of the queen's time, prescribed a composition of his own invention; whereas the same form, not fully six years before, had been received in this realm in king Edward's time: so as his lordship being a Christian politick counsellor, thought it better to follow a precedent, than to innovate; and chose the precedent rather at home than abroad.

Pag. 41. he saith, that catholicks never attempted to murder any principal person of her majesty's court, as did Burchew (whom he calleth a puritan) in wounding of a gentleman instead of Sir Christopher Hatton; but by their great



virtue, modesty, and patience, do manifest in themselves a far different spirit from the other sort. For Burchew, it is certain he was mad; as appeareth not only by his mad mistaking, but by the violence that he offered afterwards to his keeper, and most evidently by his behaviour at his execution: but of catholicks (I mean the traitorous sort of them) a man may say as Cato said sometimes of Caesar, *cum ad evertendam rempublicam sebrum accessisse*: they came sober and well advised to their treasons and conspiracies; and commonly they look not so low as the counsellors, but have bent their murderous attempts immediately against her majesty's sacred person (which God have in his precious custody!) as may appear by the conspiracy of Sommerville, Parry, Savage, the six, and others; nay, they have defended it *in thesi*, to be a lawful act.

Pag. 43. he saith, That his lordship, whom he calleth the arch-politick, hath fraudulently provided, that when any priest is arraigned, the indictment is enforced with many odious matters: wherein he sheweth great ignorance, if it be not malice; for the law permiteth not the ancient forms of indictments to be altered; like as in an action of trespass, although a man take away another's goods in the peaceablest manner in the world, yet the writ hath *quare vi et armis*; and if a man enter upon another's ground and do no more, the plaintiff mentioneth *quod herbam suam, ibidem crescentem, cum equis, bovis, porcis, et bidentibus, depellat sit, concutiat et consumpsit*. Neither is this any absurdity, for in the practice of all law the formularies have been few and certain; and not varied according to every particular case. And in indictments also of treason, it is not so far fetched as in that of trespass; for the law ever presumeth in treason an intention of subverting the state, and impeaching the majesty royal.

Pag. 45. and in other places, speaking of the persecuting of the catholicks, he still mentioneth bowellings and consuming mens entrails by fire; as if this were a torture newly devised: wherein he doth cautelously and maliciously suppress, that the law and custom of this land from all antiquity hath ordained that punishment in case of treason, and permitteth no other. And a punishment surely it is, though of great terror, yet by reason of the quick dispatching, of less torment far than either the wheel or forcipation, yea than simple burning.

Pag. 48. he saith, England is confederate with the great Turk: wherein if he mean it because the merchants have an agent in Constantinople, how will he answer for all the kings of France since Francis the first, which were good catholicks? For the Emperor? For the king of Spain himself? For the senate of Venice, and other states, that have had long time ambassadors liegers in that court? If he mean it because the Turk hath done some special honour to our ambassador (if he be so to be termed) we are beholden to the king of Spain for that; for that the honour, we have won upon him by opposition, hath given us reputation through the world: if he mean it because the Turk seemeth to affect us for the abolishing of images; let him consider then what a scandal the matter of images hath been in the church as having been one of the principal branches whereby Mahometism entered.

Pag. 65, he saith, Cardinal Allen was of late very near to have been elected pope. Whereby he would put the catholicks here in some hope, that once within five or six years (for a pope commonly sitteth no longer) he may obtain that which he missed narrowly. This is a direct abuse, for it is certain in all the conclave since Sixtus Quintus, who gave him his hat, he was never in possibility; nay, the king of Spain, that hath patronized the church of Rome so long, as he is become a right patron of it, in that he seeketh to present to that see whom he liketh, yet never durst strain his credit to so desperate a point as once to make a canvals for him: no, he never nominated him in his inclusive narration. And those that know any thing of the respects of conclaves, know that he is not papable: first, because he is an ultramontane, of which sort there hath been none these fifty years. Next, because he is a cardinal of alms of Spain, and wholly at the devotion of that king. Thirdly, because he is like to employ the treasure and favours of the popedom upon the enterprises of England, and the relief and advancement of English fugitives, his necessitous country-men. So as he presumed much upon the simplicity of the reader in this point, as in many more.



Page. 55. and again p. 70. he saith, his lordship (meaning the lord Burleigh) intendeth to match his grandchild Mr. William Cecil with the lady Arabella. Which being a mere imagination, without any circumstance at all to induce it, more than that they are both unmarried, and that their years agree well, needeth no answer. It is true that his lordship, being no stoical unnatural man, but loving towards his children (for *charitas reipublicae incipit a familia*) hath been glad to match them into honourable and good blood: and yet not so, but that a private gentleman of Northamptonshire, that lived altogether in the country, was able to bestow his daughters higher than his lordship hath done. But yet it is not seen by any thing past, that his lordship ever thought or affected to match his children in the blood royal. His lordship's wisdom, which hath been so long of gathering, teacheth him to leave to his posterity rather surety than danger. And I marvel where be the combinations which have been with great men; and the popular and plausible courses, which ever accompany such designs, as the libeller speaketh of: and therefore this match is but like unto that which the same fellow concluded between the same lady Arabella and the earl of Leicester's son, when he was but a twelvemonth old.

Page. 70. he saith, He laboureth incessantly with the queen to make his eldest son deputy of Ireland; as if that were such a catch, considering all the deputies since her majesty's time (except the earl of Suffolk and the lord Grey) have been persons of meaner degree than Sir Thomas Cecil is; and the most that is gotten by that place, is but the saving and putting up of a man's own revenues, during those years that he serveth there; and this perhaps to be saved with some displeasure at his return.

Page. *eadem* he saith, He hath brought in his second son Sir Robert Cecil to be of the council, who hath neither wit nor experience; which speech is as notorious an untruth as is in all the libel: for it is confessed by all men that know the gentleman, that he hath one of the rarest and most excellent wits of England, with a singular delivery and application of the same; whether it be to use a continued speech, or to negotiate, or to couch in writing, or to make report, or discreetly to consider of the circumstances, and aptly to draw things to a point; and all this joined with a very good nature and a great respect to all men, as is daily more and more revealed. And for his experience, it is easy to think that his training and helps hath made it already such, as many, that have served long prentishood for it, have not attained the like: so as if that be true, *qui beneficium digno dat, omnes obligat*, not his father only, but the state is bound unto her majesty, for the choice and employment of so sufficient and worthy a gentleman.

There be many other follies and absurdities in the book; which, if an eloquent scholar had it in hand, he would take advantage thereof, and justly make the author not only odious, but ridiculous, and contemptible to the world: but I pass them over, and even this which hath been said hath been vouchsafed to the value and worth of the matter, and not the worth of the writer, who hath handled a theme above his compass.

VIII. Of the height of impudency that these men are grown unto in publishing and avouching untruths, with a particular recital of some of them for an assay.

These men are grown to a singular spirit and faculty in lying and abusing the world; such as, it seemeth, although they are to purchase a particular dispensation, for all other sins yet they have a dispensation dormant to lye for the catholick cause; which moveth me to give the reader a taste of their untruths, such as are written, and are not merely gross and palpable; desiring him out of their own writings, when any shall fall into his hands, to encrease the roll at least in his own memory.

We retain in our calendars no other holidays but such as have their memorials in the Scriptures: and therefore in the honour of the blessed Virgin, we only receive the feasts of the annunciation and the purification; omitting the other of the conception and the nativity; which nativity was used to be celebrated

upon



upon the eighth of September, the vigil whereof happened to be the nativity of our Queen; which though we keep not holy, yet we use therein certain civil customs of joy and gratulation, as ringing of bells, bonfires, and such like; and likewise make a memorial of the same day in our calendar: whereupon they have published, that we have expunged the nativity of the blessed Virgin, and put instead thereof the nativity of our queen: and farther, that we sing certain hymns unto her, used to be sung unto our Lady.

It happened that, upon some blood-shed in the church of Paul's, according to the canon law, yet with us in force, the said church was interdicted, and so the gates shut up for some few days; whereupon they published, that, because the same church is a place where people use to meet to walk and confer, the queen's majesty, after the manner of the ancient tyrants, had forbidden all assemblies and meetings of people together, and for that reason, upon extreme jealousy, did cause Paul's gates to be shut up.

The gate of London called Ludgate, being in decay, was pulled down, and built a-new; and on the one side was set up the image of king Lud and his two sons; who, according to the name was thought to be the first founder of that gate; and on the other side, the image of her majesty, in whose time it was re-edified; whereupon they published that her majesty, after all the images of the saints were long beaten down, had now at last set up her own image upon the principal gate of London, to be adored, and that all men were forced to do reverence to it as they passed by, and a watch there placed for that purpose.

Mr. Jewel, the bishop of Salisbury, who according to his life died most godly and patiently, at the point of death used the versicle of the hymn *Te Deum, O Lord, in thee have I trusted, let me never be confounded*; whereupon, suppressing the rest, they published, that the principal champion of the hereticks in his very last words cried he was confounded.

In the act of recognition of *primo*, whereby the right of the crown is acknowledged by parliament to be in her majesty (the like whereof was used in queen Mary's time) the words of limitation are, *in the queen's majesty, and the natural heirs of her body, and her lawful successors*. Upon which word (*natural*) they do maliciously, and indeed villainously glose, that it was the intention of the parliament, in a cloud to convey the crown to any issue of her majesty's that were illegitimate; whereas the word (heir) doth with us so necessarily and pregnantly import lawfulness, as it had been *indecorum*, and uncivil speaking of the issues of a prince, to have expressed it.

They set forth in the year a book with tables and pictures of the persecutions against catholicks, wherein they have not only stories of fifty years old to supply their pages, but also taken all the persecutions of the primitive church, under the heathen, and translated them to the practice of England; as that of worrying priests under the skins of bears, by dogs, and the like.

I conclude then, that I know not what to make of this excels in avouching untruths, save this, that they may truly chaunt in their quires: *Linguae nostrae magnificabimus, labia nostra nobis sunt*: and that they who have long ago forsaken the truth of God, which is the touchstone, must now hold by the whetstone; and that their ancient pillar of lying wonders being decayed, they must now hold by lying slanders, and make their libels successors to their legend.



T R U E R E P O R T  
OF THE  
DETESTABLE TREASON,

INTENDED BY  
Doct<sup>r</sup> RODERIGO LOPEZ,

A physician attending upon the person of the

QUEEN'S MAJESTY,

Whom he, for a sum of money promised to be paid him by the king of Spain, did undertake to have destroyed by poison ; with certain circumstances both of the plotting and detecting of the said treason.

[Penned during the Queen's life.]

THE king of Spain, having found, by the enterprize of 88, the difficulty of an invasion of England ; and having also since that time embraced the matters of France (being a design of a more easy nature, and better prepared to his hand) hath of necessity for a time laid aside the prosecution of his attempts against this realm by open forces, as knowing his means unable to wield both actions at once, as well that of England as that of France : and therefore, casting at the fairest, hath (in a manner) bent his whole strength upon France, making, in the mean time, only a defensive war upon the Low Countries. But finding again, that the supports and aids which her majesty hath continued to the French king, are a principal impediment and retardation to his prevailing there according to his ends, he hath, now of late, by all means, projected to trouble the waters here, and to cut us out some work at home ; that by practice, without diverting and employing any great forces, he might nevertheless divert our succours from France.

According to which purpose, he first proved to move some innovation in Scotland, not so much in hope to alienate the king from the amity of her majesty, as practising to make a party there against the king himself, whereby he should be compelled to use her majesty's forces for his assistance. Then he solicited a subject within this realm (being a person of great nobility) to rise in arms and levy war against her majesty ; which practice was by the same nobleman loyally and prudently revealed. And lastly (rather, as it is to be thought, by the instigation of our traitorous fugitives in foreign parts, and the corrupter sort of his counsellors and ministers, than of his own nature and inclination) either of himself, or his said counsellors and ministers using his name, have descended to a course against all honour, all society and humanity, odious to God and man, detested by the heathens themselves, which is to take away the life of her majesty



## REPORT OF LOPEZ'S TREASON.

jeſty (which God have in his precious cuſtody!) by violence or poiſon. A matter which might be proved to be not only againſt all Chriſtianity and religion, but againſt nature, the law of nations, the honour of arms, the civil law, the rules of morality and policy; finally, to be the moſt condemned, barbarous, and ferine act that can be imagined; yea (ſuppoſing the quarrels and hoſtility between the princes to be never ſo declared and ſo mortal) yet were it not that it would be a very reproach unto the age, that the matter ſhould be once diſputed or called in queſtion, it could never be defended. And therefore I leave it to the cenſure which Titus Livius giveth in the like caſe upon Perſeus the laſt king of the Macedons, afterwards overthrow, taken with his children, and led in triumph by the Romans: *Quem non juſtum bellum gerere regio animo, ſed per omnia claudina graſſari ſclera, latreciniorum ac veneficiorum, cernebant.*

But to proceed: certain it is, that even about this preſent time there have been ſuborned and ſent into this realm divers perſons, ſome Engliſh, ſome Iriſh, corrupted by money and promiſes, and reſolved and conjured by prieſts in confeſſion, to have executed that moſt wretched and horrible fact; of which number certain have been taken, and ſome have ſuffered, and ſome are ſpared becauſe they have with great ſorrow confeſſed theſe attempts, and deteſted their ſuborners. And if I ſhould conjecture what the reaſon is why this curſed enterpriſe was at this time ſo hotly and with ſuch diligence purſued, I take it to be chiefly becauſe the matters of France were ripe, and the king of Spain made himſelf ready to unmask himſelf, and to reap that in France, which he had been long in ſowing; in regard that, there being like to be a diſuſion in the league by the reconciliation of ſome of the heads to the king, the more paſſionate ſort, being deſtituted by their aſſociates, were like to caſt themſelves wholly into the king of Spain's arms, and to diſmember ſome important piece of that crown; though now upon this freſh accident of receiving the king into Paris, it is to be thought that both the worſt affected of the league will ſubmit themſelves upon any tolerable conditions to their natural king thus advanced in ſtrength and reputation; and the king of Spain will take a ſecond advice ere he embark himſelf too far in any new attempt againſt France. But taking the affairs as they then ſtood before this accident unexpected, eſpecially of the council of Spain; during this his ſuppoſed harveſt in France, his council had reaſon to wiſh that there were no diſturbance from hence, where they make account that if her majeſty were removed (upon whole perſon God continue his extraordinary watch and providence!) here would be nothing but conſuſion, which they do not doubt but with ſome no great treaſure, and forces from without, may be nourished till they can more fully intend the ruin of this ſtate, according to their ancient malice.

But howſoever that be, amongſt the number of theſe execrable undertakers, there was none ſo much built and relied upon by the great ones of the other ſide, as was this phyſician Lopez; nor (indeed) none ſo dangerous; whether you conſider the aptneſs of the inſtrument, or the ſubtlety and ſecrecy of thoſe that practiſed with him, or the ſhift and evaſion which he had provided for a colour of his doings, if they ſhould happen to come into queſtion. For firſt, whereas others were to find and encounter infinite difficulties, in the very obtaining of an opportunity to execute this horrible act; and, beſides, cannot but ſee preſent and moſt aſſured death before their eyes, and therefore muſt be (as it were) damnable votaries if they undertake it: this man, in regard of his faculty, and of his private accels to her majeſty, had both means to perpetrate, and means to conceal, whereby he might reap the fruit of his wicked treaſon without evident peril. And for his complices that practiſed with him, being Portuqueſe, and of the retinue of king Antonio, the king of Spain's mortal enemy, they were men thereby freed and diſcharged from ſuſpicion, and might ſend letters and receive letters out of Spain without jealousy; as thoſe which were thought to entertain intelligences there for the good of their maſter. And for the evaſion and mask that Lopez had prepared for this treaſon, if it had not been ſearched and ſifted to the bottom, it was, that he did intend but to cozen the king of Spain, without ill meaning; ſomewhat in the nature of that ſtratagem which Parry, a moſt cunning and artificial traitor, had provided for himſelf.

Never-



Nevertheless this matter, by the great goodness of God, falling into good hands, of those honourable and sufficient persons which dealt therein, was by their great and worthy industry so handled and followed, as this Proteus of a disguised and transformed treason did at last appear in his own likeness and colours, which were as foul and monstrous as have been known in the world. For some of her majesty's council long since entered into consideration that the retinue of king Antonio (I mean some of them) were not unlike to hatch these kinds of treasons, in regard they were needy strangers, entered into despair of their master's fortune, and like enough to aspire to make their peace at home by some such wicked services as these; and therefore grew to have an extraordinary vigilant eye upon them: which prudent and discreet presumption, or conjecture, joined with some advertisements of espials abroad, and some other industry, was the first cause (next under the great benediction of God, which giveth unto princes zealous counsellors, and giveth to counsellors policy, and discerning thoughts) of the revealing and discovering of these treasons, which were contrived in order and form, as hereafter is set down.

This Lopez, of nation a Portuguese, and suspected to be in sect secretly a Jew (though here he conformed himself to the rites of the Christian religion) for a long time professed physick in this land, by occasion whereof (being withal a man very observant and officious, and of a pleasing and applicable behaviour; in that regard, rather than for any great learning in his faculty) he grew known and favoured in court, and was some years since sworn physician of her majesty's household; and by her majesty's bounty, of whom he had received divers gifts of good commodity, was grown to good estate of wealth.

This man had insinuated himself greatly (in regard he was of the same nation) with the king Antonio, whose causes he pretended to solicit at the court; especially while he supposed there was any appearance of his fortune; of whom also he had obtained (as one that referred all his doings to gain) an assignation of 50000 crowns to be levied in Portugal. But being a person wholly of a corrupt and mercenary nature, and finding his hopes cold from that part; he cast his eyes upon a more able paymaster, and secretly made offer long since of his service to the king of Spain: and accordingly gave sundry intelligences of that which passed here, and imported most for the king of Spain to know, having no small means, in regard of his continual attendance at court, nearness, and access, to learn many particulars of great weight: which intelligences he maintained with Bernardine Mendezza, Antonio Vega, Roderigo Marquez, and divers others.

In the conveyance of which his intelligences, and in the making known of his disposition to do the king of Spain service, he had (amongst others) one Manuel Andrada a Portuguese, revolted from Don Antonio to the king of Spain; one that was discovered to have practised the death of the said Don Antonio, and to have betrayed him to Bernardine Mendoza. This man coming hither, was, for the same, his practice appearing by letters intercepted, apprehended and committed to prison. Before which time also, there had been by good diligence intercepted other letters, whereby the said Andrada advertised Mendoza, that he had won Dr. Lopez to the king's service: but Lopez having understanding thereof, and finding means to have secret conference with Andrada before his examination, persuaded with him to take the matter upon himself, as if he had invented that advertisement touching Lopez, only to procure himself credit with Mendoza; and to make him conceive well of his industry and service. And to move him herunto, Lopez set before Andrada, that if he did excuse him, he should have credit to work his delivery; whereas, if he did impeach him, he was not like to find any other means of favour. By which subtle persuasion Andrada, when he came to be examined, answered according to the direction and lessoning which Lopez had given him. And having thus acquitted himself of this suspicion, became suitor for Andrada's delivery, craftily suggesting, that he was to do some notable service to Don Antonio; in which his suit he accordingly prevailed. When Lopez had thus got Andrada out of prison, he was suffered to go out of the realm into Spain, in pretence (as was said) to do some service to Don Antonio;



## REPORT OF LOPEZ'S TREASON.

Antonio; but in truth, to continue Lopez's negotiation and intelligences with the king of Spain; which he handled so well, as at his return hither, for the commending of the said Lopez, he brought to him from the king, besides thanks and words of encouragement, and an Abrazo (which is the complement of favour) a very good jewel garnished with sundry stones of good value. This jewel, when Lopez had accepted, he cunningly cast with himself, that if he should offer it to her majesty first, he was assured she would not take it: next, that thereby he should lay her asleep, and make her secure of him for greater matters, according to the saying, *Fraus sibi fidem in parvis praeservit ut in magnis opprimat*; which accordingly he did, with protestations of his fidelity: and her majesty, as a prince of magnanimity, not apt to fear or suspicion, returned it to him with gracious words.

After Lopez had thus abused her majesty, and had these trials of the fidelity of Andrada, they fell in conference (the matter being first moved by Andrada, as he that came freshly out of Spain) touching the empoisoning of the queen: which Lopez (who saw that matter of intelligence, without some such particular service, would draw no great reward from the king of Spain: such as a man that was not needy, but wealthy as he was, could find any taste in) assented unto. And to that purpose procured again this Andrada to be sent over, as well to advertise and assure this matter to the king of Spain and his ministers (namely, to the count de Fuentes, assistant to the general of the king of Spain's forces in the Low Countries) as also to capitulate and contract with him about the certainty of his reward. Andrada having received those instructions, and being furnished with money, by Lopez's procurement, from Don Antonio, about whose service his employment was believed to be, went over to Calais, where he remained to be near unto England and Flanders, having a boy that ordinarily passed to and fro between him and Lopez: by whom he did also (the better to colour his employment) write to Lopez intelligence, as it was agreed he should between him and Lopez; who bad him send such news as he should take up in the streets. From Calais he writeth to count de Fuentes of Lopez's promise and demands. Upon the receipt of which letters, after some time taken to advertise this proposition into Spain, and to receive direction thereupon, the count de Fuentes associated with Stephano Ibarra, secretary of the council of the wars in the Low Countries, calleth to him one Manuel Louis Tinoco, a Portuguese, who had also followed king Antonio, and of whose good devotion he had had experience, in that he had conveyed unto him two several packets, wherewith he was trusted by the king Antonio for France. Of this Louis they first received a corporal oath, with solemn ceremony, taking his hands between their hands, that he should keep secret that which should be imparted to him, and never reveal the same, though he should be apprehended and questioned here. This done, they acquainted him with the letters of Andrada, with whom they charge him to confer at Calais in his way, and to pass to Lopez into England, addressing him farther to Stephano Ferrera de Gama, and signifying unto the said Lopez withal (as from the king) that he gave no great credence to Andrada, as a person too slight to be used in a cause of so great weight: and therefore marvelled much that he heard nothing from Ferrera of this matter, from whom he had in former time been advertised in generality of Lopez's good affection to do him service. This Ferrera had been sometimes a man of great livelihood and wealth in Portugal, which he did forego in adhering to Don Antonio, and appeareth to be a man of capacity and practice; but hath some years since been secretly won to the service of the king of Spain, not travelling nevertheless to and fro, but residing as his lieger in England.

Manuel Louis dispatched with these instructions, and with all affectionate commendations from the count to Lopez, and with letters to Ferrera, took his journey first to Calais, where he conferred with Andrada; of whom receiving more ample information, together with a short ticket of credence to Lopez, that he was a person whom he might trust without scruple, came over into England, and first repaired to Ferrera, and acquainted him with the state of the business, who had before that time given some light unto Lopez, that he was not a stranger unto the practice between him and Andrada, wherewith



(indeed) Andrada had (in a sort) acquainted him. And now upon this new dispatch and knowledge given to Lopez of the choice of Ferrera to continue that which Andrada had begun; he, to conform himself the better to the satisfaction of the king of Spain, and his ministers abroad, was content more fully to communicate with Ferrera, with whom, from that time forward, he meant singly and apertly to deal; and therefore cunningly forbore to speak with Manuel Louis himself; but concluded, that Ferrera should be his only trunk, and all his dealings should pass through his hands; thinking thereby to have gone invisible.

Whereupon he cast with himself, that it was not safe to use the mediation of Manuel Louis, who had been made privy to the matter, as some base carrier of letters; which letters also should be written in a cipher, not of alphabet, but of words; such as might, if they were opened, import no vehement suspicion. And therefore Manuel Louis was sent back with a short answer, and Lopez purveyed himself of a base fellow, a Portuguese called Gomez d'Avila, dwelling hard by Lopez's house, to convey his letters. After this messenger provided, it was agreed between Lopez and Ferrera, that letters should be sent to the count de Fuentes and secretary Juarra, written and signed by Ferrera (for Lopez could hardly did forbear to write himself) but directed and (indeed) dictated word by word by Lopez himself. The contents thereof were, that Lopez was ready to execute that service to the king, which before had been treated, but required for his recompence the sum of 50000 crowns, and assurance for the same.

These letters were written obscurely (as was touched) in terms of merchandize; to which obscurity when Ferrera excepted, Lopez answered, they knew his meaning by that which had passed before. Ferrera wrote also to Manuel Louis, but charged this Gomez to deliver the same letters unto him in the presence of Juarra; as also the letter to Juarra in the presence of Manuel Louis. And these letters were delivered to Gomez d'Avila to be carried to Brussels, and a passport procured, and his charges defrayed by Lopez. And Ferrera, the more to approve his industry, writ letters two several times, the one conveyed by Emanuel Pallacios, with the privy of Lopez, to Christophero Moro, a principal counsellor of the king of Spain, in Spain; signifying that Lopez was won to the king of Spain, and that he was ready to receive his commandment; and received a letter from the same Christophero Moro, in answer to one of these, which he shewed unto Lopez. In the mean time Lopez, though a man (in semblance) of a heavy wit, yet indeed subtle of himself, as one trained in practice, and besides, as wily as fear and covetousness could make him, thought to provide for himself (as was partly touched before) as many starting holes and evasions as he could devise, if any of these matters should come to light. And first he took his time to cast forth some general words afar off to her majesty, as asking her the question, Whether a deceiver might not be deceived? Whereof her majesty (not imagining these words tended to such end, as to warrant him colourably in this wretched conspiracy, but otherwise, of her own natural disposition bent to integrity and sincerity) uttered dislike and disallowance. Next, he thought he had wrought a great mystery in demanding the precise sum of 50000 crowns, agreeing just with the sum of assignation or donation from Don Antonio; idly, and in that grossly imagining, that, if afterwards he should accept the same sum, he might excuse it, as made good by the king of Spain, in regard he desired to follow and favour Don Antonio; whereupon the king of Spain was in honour tied not to see him a loser. Thirdly, in his conferences with Ferrera, when he was appoied upon the particular manner how he would poison her majesty, he purposely named unto him a syrup, knowing that her majesty never useth syrup; and therefore thinking that would prove an high point for his justification, if things should come in any question.

But all this while desirous after his prey, which he had in hope devoured, he did instantly importune Ferrera for the answering of his last dispatch, finding the delay strange, and reiterating the protestations of his readiness to do the service, if he were assured of his money.



## REPORT OF LOPEZ'S TREASON.

Now before the return of Gomez d'Avila into England, this Stephen Ferrera was discovered to have intelligence with the enemy; but so, as the particular of his traffick and overtures appeared not, only it seemed there was great account made of that he managed: and thereupon he was committed to prison. Soon after arrived Gomez d'Avila, and brought letters only from Manuel Louis, by the name of Francisco de Thores; because (as it seemeth) the great persons on the other side had a contrary disposition to Lopez, and liked not to write by so base a messenger, but continued their course to trust and employ Manuel Louis himself, who in likelihood was retained till they might receive a full conclusion from Spain; which was not till about two months after. This Gomez was apprehended at his landing; and about him were found the letters aforesaid, written in jargon, or verbal ciphers, but yet somewhat suspicious, in these words: "This bearer will tell you the price " in which your pearls are esteemed, and in what resolution we rest about a little " musk and amber, which I am determined to buy." Which words the said

Manuel Louis afterwards confessed to be deciphered in this sort; That by the allowance of the pearls he meant, that the count de Fuentes, and the secretary, did gladly accept the offer of Lopez to poison the queen, signified by Ferrera's letter; and for the provision of amber and musk, it was meant, that the count looked shortly for a resolution from the king of Spain concerning a matter of importance, which was for burning of the queen's ships; and another point tending to the satisfaction of their vindictive humour.

But while the sense of this former letter rested ambiguous, and that no direct particular was confessed by Ferrera, nor sufficient light given to ground any rigorous examination of him, cometh over Manuel Louis with the resolution from Spain; who first understanding of Ferrera's restraint, and therefore doubting how far things were discovered, to shadow the matter, like a cunning companion, gave advertisement of an intent he had to do service, and hereupon obtained a passport: but after his coming in, he made no haste to reveal any thing, but thought to dally and abuse in some other sort. And while the light was thus in the clouds, there was also intercepted a little ticket which Ferrera in prison had found means to write, in care to conceal Lopez, and to keep him out of danger, to give a caveat of staying all farther answers and advertisements in these causes. Whereupon Lopez was first called in question.

But in conclusion, this matter being with all assiduity and policy more and more pierced and mined into, first, there was won from Manuel Louis his letters from the count de Fuentes and secretary Juarra to Ferrera, in both which mention is made of the queen's death; in that of the count's, under the term of a commission; and in that of the secretary's, under the term of the great service, whereof should arise an universal benefit to the whole world. Also the letters of credit written by Gonzalo Gomez, one to Pedro de Carrera, and the other to Juan Pallacio, to take up a sum of money by Manuel Louis, by the foresaid false name of Fr. de Thores; letters so large, and in a manner without limitation, as any sum by virtue thereof might be taken up: which letters were delivered to Louis by the count de Fuentes's own hands, with directions to shew them to Lopez for his assurance; a matter of God's secret working in staying the same, for thereupon rested only the execution of the fact of Lopez. Upon so narrow a point consisted the safety of her majesty's life, already sold by avarice to malice and ambition, but extraordinarily preserved by that watchman which never slumbereth. This same Manuel Louis, and Stephen Ferrera also, whereof the one managed the matter abroad, and the other resided here to give correspondence, never meeting after Manuel had returned, severally examined without torture or threatening, did in the end voluntarily and clearly confess the matters above-mentioned, and in their confessions fully consent and concur, not only in substance, but in all points, particularities, and circumstances; which confessions appear expressed in their own natural language, testified and subscribed with their own hands; and in open assembly, at the arraignment of Lopez in the Guild-hall, were by them confirmed and avouched to Lopez his face; and therewithal are extant, undefaced, the original letters from count de Fuentes, secretary Juarra, and the rest.



And Lopez himself, at his first apprehension and examination, did indeed deny, and deny with deep and terrible oaths and execrations, the very confessions and treaties with Ferrera, or Andrada, about the empoisonment. And being demanded, if they were proved against him what he would say? he answered, That he would yield himself guilty of the fact intended. Nevertheless, being afterwards confronted by Ferrera, who constantly maintained to him all that he said, reducing him to the times and places of the said conferences, he confessed the matter, as by his confession in writing, signed with his own hand, appeareth. But then he fell to that slender evasion, as his last refuge, that he meant only to cozen the king of Spain of the money: and in that he continued at his arraignment, when, notwithstanding, at the first he did retract his own confession: and yet being asked, whether he was drawn either by means of torture, or promise of life, to make the same confession? he did openly testify that no such means were used towards him.

But the fallhood of this excuse, being an allegation that any traitor may use and provide for himself, is convicted by three notable proofs. The first, that he never opened this matter, neither unto her majesty, unto whom he had ordinary access, nor to any counsellor of state, to have permission to toll on, and inveigle these parties with whom he did treat, if it had been thought so convenient; wherein, percase, he had opportunity to have done some good service, for the farther discovery of their secret machinations against her majesty's life. The second, that he came too late to this shift; having first betrayed his guilty conscience, in denying those treaties and conferences till they were evidently and manifestly proved to his face. The third, that in conferring with Ferrera about the manner of his assurance, he thought it better to have the money in the hands of such merchants as he should name in Antwerp, than to have it brought into England; declaring his purpose to be, after the fact done, speedily to fly to Antwerp, and there to tarry some time, and so to convey himself to Constantinople; where it is affirmed, that Don Salomon, a Jew in good credit, is Lopez his near kinsman, and that he is greatly favoured by the said Don Salomon: whereby it is evident that Lopez had cast his reckonings upon the supposition of the fact done.

Thus may appear, both how justly this Lopez is condemned for the highest treason that can be imagined; and how, by God's marvellous goodness, her majesty hath been preserved. And surely, if a man do truly consider, it is hard to say, whether God hath done greater things by her majesty or for her: if you observe on the one side, how God hath ordained her government to break and cross the unjust ambition of the two mighty potentates, the king of Spain and the bishop of Rome, never so straitly between themselves combined: and on the other side, how mightily God hath protected her, both against foreign invasion and inward troubles, and singularly against the many secret conspiracies that have been made against her life; thereby declaring to the world that he will indeed preserve that instrument which he hath magnified. But the corruptions of these times are wonderful, when that wars, which are the highest trials of right between princes (that acknowledge no superior jurisdiction) and ought to be prosecuted with all honour, shall be stained and infamed with such foul and inhuman practices. Wherein if so great a king hath been named, the rule of the civil law (which is a rule of common reason) must be remembered; *Frustra legis maxium implorat, qui in legem committit*. He that hath sought to violate the majesty royal, in the highest degree, cannot claim the preeminence thereof to be exempted from just imputation.

AN



A N

## A P O L O G Y

O F T H E

## E A R L of E S S E X:

Against those which jealously and maliciously tax him to be the hinderer of the peace and quiet of his country.

Written in the person of the said earl, *anno* MDXCVIII.

TO Mr. A N T H O N Y B A C O N.

**H**E that either thinketh he hath, or wisheth to have, an excellent face, no sooner is told of any spot or uncomeliness in his countenance, than he hies to shew himself to a glass, that the glass may shew again his true likeness unto him: the same curiosity moves me, that desires to have a fair mind, to shew the true face and state of my mind to my true friend; that he, like a true glass, without injury or flattery, may tell me whether nature or accident have set so foul a blemish in it as my accusers pretend. I am charged, that, either in affection, or opinion, or both, I prefer war before peace; and so consequently that all my counsels, actions, and endeavours do tend to keep the state of England in continual wars; especially at this time, when some say peace may be had, and I only impugn it: but both my heart disclaims from so barbarous an affection, and my judgment from so absurd an opinion. The reputation of a most faithful subject and zealous patriot (which with hazard of my life and decay of my estate, I have sought to purchase) must not suffer this ugly and odious asperson, that my actions have caused, maintained, or increased the wars, or had ever any such scope or intent.

Mr. Fr.  
Bacon.

First, for my affection; in nature it was indifferent to books and to arms, and was more inflamed with the love of knowledge, than with the love of fame; witness your rarely qualified \* brother, and that most learned and truly honest master Savile; yea my contemplative retiredness in Wales, and my bookishness from my very childhood. And now, if time, reason, or experience have taught me to wish that to myself, which is best for myself, what should I not wish rather than martial employments, in which I have impaired my state, lost my dear and only brother, the half arch of my house, buried many of my dearest and nearest friends, and subjected myself to the rage of seas, violence of tempests, infections of general plagues, famine, and all kind of wants, discontentment of undisciplined and unruly multitudes, and acceptance of all events; while I did not only leave my known enemies elbow-room to seek their own and their friends advancement, but was fain (sometimes) upon trust in their protection, after new reconcilements, to make them the receivers, censurers, and answerers of all my dispatches? And as my affection neither in truth is, nor, if I regard myself, in reason ought to be, set on these courses of the wars; so in judgment, I have ever thought wars the diseases and sickness; and peace, the true natural and healthful temper of all states. I have thought excellent minds should come to the wars, as surgeons do to their cauteries, when no other easy, or ordinary remedy will serve; or as men which have no way but the sword to prove the truth of their plea, and obtain their detained right. Yea, I will go one degree further: I think that prince, or state, offends as much against justice



justice, and against reason, that omitteth a fair occasion of making an honourable and safe peace, as that which rashly and causelessly moveth an unjust war.

These principles have made me conclude this general thesis, common to all states, That peace is to be preferred before war. I will come to an hypothesis proper to the state of England. Where most part of the wealth of the land, and the revenues of the crown, grows by traffick and intercourse; and where almost all traffick is interrupted by the wars; where the state in largeness of territory and in wealth (which is the sinews of war) is inferior to that of the enemy; where, besides all foreign wars, there is yet a great fire of rebellion unquenched; where associates in wars give over the quarrel; neighbours are suspected; neutrals shew ill affection; and the people itself grows weary of the charge and misery of the wars; there, of all places, peace should be embraced (if it be offered) and sought for by fit and honourable means, if it may be compassed. But though wars be diseases, yet I think it better to endure some sickness, than to venture upon every medicine. I should hold that an enemy may be trusted if he offer safe conditions, as a physician may if he give a wholesome and tried medicine: but to trust to an enemy's faith, when his perfidy shall undo, or extremely endanger us, and infinitely advantage himself, were *medicum haeridem facere*. It is no cure, to bring a state from a doubtful war to an unsafe treaty: it is no more than to put a feverous body out of a hot fit into a cold. To conclude, as an unskilful physician may, by working a natural body with his medicines, bring it from a tertian or quartan fever to an hectic; so an unprovident statesman may, with conditions, or treaty, so disarm a state of the friends, reputation, and strength it hath, as the cure will prove far worse than the disease. Therefore it is not the name of war or peace, but the circumstances and conditions of either of them, that should make us fly the one and embrace the other. Now, what are the circumstances of the war or peace with Spain, it shall appear in his proper place in the treatise following. But ere I pass farther, lest this profession of my disposition and affection to peace be challenged to be but a fair pretence; and these rules, which I avow to hold in judgment, be compared to the doctrine of some divines of our time, farthest of all from their practice; I must answer some objections of my detractors, who will say, my entering into the actions of the Low Countries, ere I was out of my pupillage; my putting myself into the journey for Portugal, without charge, or without leave; my procuring myself the conducting of her majesty's succours to the French king in the year 91; my sea-journeys these two last summers, wherein both myself and my friends ventured deeply of our own private means; my near friendship with the chief men of action, and general affection to the men of war of our nation; and, lastly, my opposing against the treaty of peace at this time when others persuade unto it; that all these, I say, are arguments that I wish not peace, but delight in war. But for my going into the Low Countries, if neither the company of my fathers-in-law, the honours, the charge of general of the horse in a fair army when I was but nineteen years old, the taking the start of mine own rank, when I saw the state of England not only dispose itself to great actions, but engaged in them; if these reasons were not sufficient to warrant my course, yet consider what choice I had, or what else I could have done with myself. In the court I had small grace and few friends. In my house in the country I had lived a year, till the opinion of the world upbraided me with more retiredness than was fit for my years or the present time. And to have gone to travel, when my country sent out so great an army, had been as much, as to have turned over books only to gaze on the babies and pictures, while others were studying the sense. For to justify my going into Portugal, I must plead these circumstances: first, of the person with whom I went, a poor distressed exiled king; whom I many times heard repeat the story of his own oppressions: secondly, of the enemies against whom I went; an insolent, cruel, and usurping nation, that disturbed the common peace, aspired to the conquest of my country, and a general enemy to the liberty of christendom: thirdly, of the cause in which I went; to deliver the oppressed out of the hands of the oppressor, and (by giving the Spaniard his hands full at home) to free both mine own country, and our confederates, from the fear, or danger of his attempts.



attempts. And, last of all, the time in which I went; a time when mine eyes, full of disdain, had so lately seen the sadly called The Invincible Armado sail by our shores; when all the brave hearts in the kingdom boiled till they saw that insolent enemy taught both to know himself, and to value us. And when my heart was persuaded by these circumstances, I engaged my means, kinsfolks, friends and followers, else neither the adventure had been made up, nor the journey performed; it being no avowed action of her majesty's, but a mere adventure of private men. And when I was so far in, I confess I was not of their humour that love to wager upon other mens heads, or to sit at home like merchants, whilst their hopes and goods are ventured abroad. For my going without charge and without leave, I must avow the one as out of counsel, and excuse the other as by necessity. I chose to go without charge, that I might be free to execute the lels. I commanded not, both that I might not be obnoxious to the success, and because I had overthrown the voyage if I had stood for the commission; and could take no second place, having, at the same time, and in the same army, had place above the general. But though I had no charge, I made my brother general of the horse, my faithful friend, Sir Roger Williams, colonel of the infantry, eight of my fast friends colonels; and twenty, at the least, of my do-mesticks captains: so as I might have party and authority enough when I would. For my want of leave, I must plead necessity; her majesty having resolved to send none of my quality, and many at home shewing envy enough to those poor gentlemen that were named; which made me see with what success I should have sued for leave. For my conducting of her majesty's succours to the French king, in the year 91, I must alledge, that the sending of the succours was resolved on before my name was in question; and if I had not offered myself to the journey, some other nobleman (that never had place in the wars) might (as the phrase is in the common law) have been *promotus per saltum*; and so I, that never had had her majesty's commission to command in chief, should have seen my punies leap over my head. Also I felt that my fortune bred me envy, and that envy procured me strong and dangerous opposition, which could not have been withstood but by her majesty's great favour; and that the greatness of her majesty's favour must grow out of the greatness of her servants merits: and I saw no way of merit lie so open to me as by service in her wars; the times themselves and my own beginnings fitting with it; and, at that time, no man in my country, of my rank, disposing himself that way. If, besides all this, it be considered, that I went to a king, who, for his admirable valour, and often fighting with his own hands, was not only the most famous, but the most renowned captain of Christendom: that the intended service was to free the maritime parts of Normandy from the hands of the league and power of the Spaniard, that thereby the common enemy should find less succour, or favour in those seas: if these things be well considered, I doubt not but my French journey will be thought sufficiently justified. But perhaps in those actions, where I had no charge at all, or was commanded by others, or offered myself to the service when the employment was before resolved on, I having no part nor interest in the counsel, my apology will be better allowed than in my two last sea-journeys, wherein I am charged to be author of the counsel, and executor of the service.

Therefore, first, to the first. For the counsel of going to Spain, I protest I had no more part in it than my lord Treasurer, my lord Admiral, and Mr. Secretary; who were all privy from the beginning, and did assent and advise to the journey as much as I did. Her majesty did first arm for the defensive, upon intelligence that the king of Spain did both purpose and prepare to assail her, finding that she strengthened the Low Countries and France against him, infested him in his Indies, and choked him by sea; so as his council resolved it to be the shortest and easiest way to all his ends to begin with England. And when her majesty was armed and able to take the start, it was thought both a wise and safe counsel not to lose so great a charge, and so fair an opportunity. For the project of going to Cadiz, I have ever confessed it was my lord Admiral, my colleague's. If any man will single me out to charge me alone with any thing, it must be, that when all charge of the preparation was past, the army levied, and marching



to the rendezvous, and the Low Country fleet (that was to join with us in the way) ready, that then I was as constant to the journey, as I had been all the while before; when (for some private gain to myself) I might have sold the honour of my sovereign, the security of my country, the contentment of our confederates, the hopes, and almost whole fortunes of hundreds of my friends, whom I had drawn into the journey. If any man will use so base a speech, as that we offended the king of Spain so deeply by that journey, as he is more implacable and farther from peace: I answer, *Vana sine viribus ira*: we brought away and burnt his shipping, destroyed his sea-provisions, yea put him to such charge and loss, as he shortly after played bankrupt with all his creditors. Let me ever see his strength decrease, though his malice increase; rather than believe in his faith, or good nature, when his strength is great. If any man will of the other side object, though we had good hap, yet our design was nought, for this drew the war to no end: I must confess, I neither performed what I purposed, nor that which was done was sufficient. I purposed to dwell in a port of the enemy's, and to make a continual diversion: witness my \* letter to the lords of the council, dated from Plymouth the first of June, 1596, and delivered by my secretary, Edward Raynolds, at Greenwich, the sixteenth of the same month. And when I was possessed of Cadiz, I offered to stay there with three or four hundred men, if the whole fleet could furnish us but with three months victuals: witness the whole council of war. And by that means I doubted not but to have brought the wars in those parts to a short end, and have made the king of Spain weary of seeking to dislodge me. But my letter was neither answered nor liked here; nor I, at Cadiz, enabled to feed myself, and the men of war, till a supply might have come. So as (except to have been of the same mind that all my fellows were that were called to council, to have joined with my lord Admiral, when he offered to take an equal commission of command with me by sea and land; to have sought, as much as I could, to have weakened him, that, by all means he can, seeks to destroy and conquer us; and to leave off doing that which I had not warrant nor means to do; be a fault) in my journey 1596 I committed no fault. For my last journey, 1597, let it be remembered how I was brought into it, with what counsel and designs I went out, and what were the true causes of our want of such success, as in our own hopes we promised to ourselves: and then if I undertook more than duty laid upon me, or advised any thing that reason made not probable, or failed in any thing that any possibility enabled me unto, I will think that the hardest censurers of me do me no wrong. But, first, it is well known, that her majesty had armed and victualled ten of her own ships, and caused the states of the Low Countries to prepare the like number, before I was ever spoken of to go to sea. And when my lord Thomas Howard and Sir Walter Raleigh, who should have been sent out with this force, thought the hopes of doing any great service weak and uncertain, and the news of the Adelantado's preparations at Farrol and the Groyne daily confirmed, a new council was called, in which her majesty found, that this force prepared was too great for a discovery, and too little for an attempt; that a fleet, inferior to that which the Adelantado commanded, might light upon some merchants, or take fishermen to learn news; but should never be in any possibility to take any of the king of Spain's treasure, nor should safely lie on the coasts of Spain, or enter his ports; being able to command no port, nor daring to fight with the enemy's fleet when it should come out: and, lastly, that a fleet, without an army to land, might sail from cape to cape, and return when their victuals were almost eaten, without doing other service. For the Adelantado would not come forth, if he liked not his match; and the Indian fleet might be staid at the Islands; or by advices directed so to alter their course, as they should hardly be intercepted. Then a new consultation was had, what might be done with a sufficient force by sea and land: it was resolved, that not only Farrol, where the Adelantado lay, but any part of Spain might be entered, and the force of the king (that should be found in it) beaten or destroyed, or any port or island of the enemy's taken and fortified; besides the commanding of any fleet of war, or of treasure (that should be met with at sea) if her majesty's ships, and five thousand land



## A N A P O L O G Y O F T H E

soldiers, with vessels to transport them, were added to the former proportion. All which proportions being agreed unto, and my lord Admiral excusing himself from the journey, by the indisposition of his body, I had warning to prepare myself to take the charge. When I went out, my first design was upon Farrol, both by her majesty's commandment, and mine own choice. For, when I had defeated that force, I might go after whither I list, and do almost what I list; I mean in any places upon the coast. And of doing what I would upon the fleet and army at Farrol I had little cause to doubt, if God had given me a favourable passage, and a season to land the army, and enter the port; their preparations to resist being all known, and little moving any distrust of the possibility or facility of this kind of enterprise. I think, I have satisfied you in some of my former papers, especially in my discourse written as I came home from Cadiz; and I will satisfy any reasonable man that will speak with me of it. The advantages that would have grown by it are manifest. Her majesty's dominions, for a long time, from any invasion from Spain had been secured: the king of Spain's East and West Indian fleets (both going out and coming home) utterly unguarded: the taking of all the Spanish or Portugal islands made easy: the enterprise of the West Indies warranted from two of the greatest dangers, an encounter by sea, and an invasion at home, while her majesty's forces were absent: to conclude, her majesty had been made such an absolute queen of the ocean, and her enemy so disarmed by sea, as she might either enforce him to any conditions of peace, or make war to her infinite advantage, and his utter ruin. I had also thought upon some place which might be held for diversion of the wars. And, if ever the taking of the Indian fleets were likely, I knew I should be in a fair way for it; though, I confess, I account those hopes so uncertain, as I reckoned them no better than by-chances. But my first, chiefest, and main design was to assail the Adelantado in Farrol: Farrol was the rendezvous I gave: to Farrol I directly shaped my course; and at Farrol I had either mastered that fleet, that had a whole year laid threatening my country, and driven their army into the hills, or else sacrificed myself.

The causes of frustrating this design were; first, the violent long tempest, which took us in the height of 46. scattered our fleet, disabled and almost drowned most of our principal ships, and (when we could no longer bear it up against the wind) drove us back upon our own coast. Next, that unreasonable stormy weather which kept us a month (after we were put back) from attempting to go forth again. And, lastly, our wants: which forced us to discharge the whole land army, saving one thousand men. For mine own excuse, how long I endured ere I returned back again, and to what desperate case I brought my ship, there be witnesses enough. Also her majesty and her council know, what offer of service I made her when I came up port from Plymouth, accompanied with Sir Walter Raleigh, if she would have let me go but with half her fleet, and less than half the land army, to such place as myself and the council of war had chosen. This being done, the enemy, and not her majesty, should have been sure to feel the weight and charge of the journey. And when her majesty accepted not of that offer, even a little before my last going forth, I wrote unto her majesty to offer the attempting of the fleet in Farrol, if she would give me leave to hazard the thousand old soldiers, with some number of fly-boats and merchant ships, and the St. Matthew and St. Andrew (for myself, and one other commander to go in) as a guard to the rest, and as fit ships to board the greatest of the galleons; leaving all the queen's ships, and the other principal commanders, without the bay till we had tried our fortune. Of this letter I received answer, tying me to hazard none but these, and yet with some limitations. But I lost the St. Matthew by her breaking her foremast; and lost company with the St. Andrew ere I came to the opening of the Groyne. And then the same night while I was fain to lie by the lee for the stopping of a dangerous leak, I lost the company of one of the admirals of the squadrons (by a mischance that fell to his ship) with thirty sail, amongst which were many of the companies of soldiers; so as in effect I wanted all those means which were allotted for my attempt. And then I hovered up and down the coasts in those heights, whither I had



I had directed such as should lose company to seek me in; and sent out pinaces every way, till the admiral of the Squadron that was missing sent me word, when I was in the height of 45. that the Adelantado was forth with his fleet, and gone straight to the Tercera, to wait home the Indian fleet. Then I resolved, after I had called a council, to go thither to seek him. And though I failed of him, because he never offered to come forth till long after; yet I missed very narrowly and unfortunately of the taking of the West Indian fleet. If I had met with them before they had got into the Tercera, there would none of them have escaped: and I had met with them, if a false intelligence had not made me stand one night a contrary way. But it was the will of God there should be no blow struck at sea that year: else, when at the same time I returned from the islands, and the Adelantado bore for the coast of England, we had not so narrowly missed one another as we did.

I have now shewed (worthy master Bacon) with what mind I undertook those foreign employments and actions of the wars. A word for my friendship with the chief men of action; and favour generally to the men of war; and then I come to their main objection; which is, my crossing of the treaty in hand. For most of them that are accounted the chief men of action, I do confess, I do entirely love them. They have been my companions both abroad and at home: some of them began the wars with me; most have had place under me; and many have had me a witness of their rising from captains, lieutenants, and private men, to those charges, which since (by their virtue) they have obtained. Now that I have tryed them, I would chuse them for friends; if I had them not: before I had tryed them, God and his providence chose them for me. I love them for mine own sake; for I find sweetness in their conversation; strong assistance in their employments with me, and happiness in their friendship. I love them for their virtues sake, and for their greatness of mind (for little minds, though never so full of virtue, can be but a little virtuous) and for their greater understanding: for to understand little things, or things not of use; is little better than to understand nothing at all. I love them for their affections: for self-loving men love ease, pleasure, and profit; but they that love pains, danger, and fame, shew that they love publick profit more than themselves. I love them for my country's sake: for they are England's best armour of defence, and weapons of offence. If we may have peace, they have purchased it: if we must have war, they must manage it. Yet while we are doubtful and in treaty, we must value ourselves by what may be done; and the enemy will value us by what hath been done by our chief men of action.

That generally I am affected to the men of war, it should not seem strange to any reasonable man. Every man doth love them of his own profession. The grave judges favour the students of the law: the reverend bishops the labourers in the ministry: and I (since her majesty hath yearly used my service in her late actions) must reckon myself in the number of her men of war. Before action, providence makes me cherish them for what they can do: in action necessity makes me value them for the service they do: and after action, experience and thankfulness makes me love them for the service they have done. I know, that great scandal lies upon the profession of arms, as if it were a school of dissoluteness: but that grows by command and charge given to dissolute chiefs; and it is a fault in the professors, and not in the profession. For a camp ought to be (and so is, if it be well governed) the best school to make religion truly felt, and piety and honesty daily practised. For myself, I am sure they will rather tax me with being too severe, than charge me for being too remiss, or popular. But I long to leave these disputations that are but skirmishes; and will come to join with mine adversaries in the encounter, wherein they labour utterly to overthrow my credit both with my sovereign, and with my country. They say, England cannot stand without peace, peace cannot grow but by treaty, treaty cannot be had but when the enemy offers it; and that now, when the enemy offers to treat, the doubts I cast, and arguments I frame, do shew I would not have her majesty's commissioners sent over. I answer, in a word; That if I



saw them build upon any one true principle, I should not so much dissent from them as I do: but if they will promise themselves, that they may have peace without ground, or think that peace shall be good for us without reason, or to leap blindfold into a treaty with undue circumstances; I say, then I do not suspect too much, but they too little. For a ground that we may have peace, it is alleged that a commission is come to the cardinal out of Spain; and that by virtue of this commission he offers to send his deputies to meet with her majesty's. What is the conclusion? Therefore the enemy desires and intends peace. Allow this for a good syllogism, and you may put to school all the logicians in Christendom. Yet I grant we may conclude thus; that therefore he makes shew as if he meant peace. But remember how heretofore the Spanish king's lieutenant and other ministers have pretended commission when they had none; yea, have drawn us to treaty, ere they had received power to conclude. Remember also how that the king hath sent a commission out of Spain to be openly shewed, that treaty might be entertained, when it is notorious to the world he never meant to conclude any peace. Witness of all this the duke of Parma, his want of commission, when by his letters he drew my lord of Darby, and my lord Cobham, and one other, commissioners to the treaty of Borborough; and, afterwards, their coming of a commission when their great navy did presently appear upon our coast for the conquest of England. But do they offer to treat, and mean no peace? What is then their meaning? If you will have me interpret; I will tell you. Their first attempt against England was in eighty eight. From that time to this present it is full ten years; the just time of the siege of Troy. And now that they see open force cannot prevail, they in shew retire and give over arms; but have prepared a Sinon's horse, which cannot enter if we cast not down our walls. But because we are thought more credulous than the Trojans-were, the bare letter of a base beggarly fugitive; assuring us that good faith is meant, as their uttermost stratagem they use to deceive us. But though some believe, yet I say still, *Timeo Danaos et dona ferentes*. If they appeal from my expostitions, let their actions expound themselves. Will themselves charge us at Borborough with failing to agree to peace? Or, will they have us believe that the duke of Medina came with that huge navy and army only to be a witness to the contract? Or, if they had rather their own words should expound their meanings, than their actions, hear Emanuel Louis, the Portugal, their messenger, that brought Lopez and Stephano Ferrera assurance for fifty thousand crowns, to be paid as soon as their devilish conspiracy against the life of our precious sovereign should take effect. Hear him, I say, who, at his arraignment in Guild-hall, confessed at the bar, that in their cipher, or jargon, where they wrote of peace, they intended the death and murder of her majesty. Or, if the peace must not be condemned to be infiduous, under two witnesses; hear also Antonio Raulston, now prisoner in the Tower of London: who coming hither out of Spain, with a pretence of making overture of a peace (and, for the better colour, bringing letters to her majesty, to yourself, and to me, from Creswell the Jesuit, to that end) confessed upon his examination, taken by Mr. Secretary and myself, that his true errand, given by some of the king of Spain's chiefest ministers, was to discover the state of our preparations, to assure the patriots of England that they might shortly expect their deliverance, to win some counsellors about her majesty, or noblemen of this kingdom to favour their cause, and to offer me, from the king of Spain, what title, sum of money, or pension, I would desire; so as I would be won to take their part.

Judge now (worthy Mr. Bacon) out of the clearness of your own judgment, how I should understand their offer, or speech of peace: and think out of the worthiness of your own heart, what peace my heart could take with them, that have attempted to conquer my country, practised to murder my sovereign, and sought out me as a fit man to be tempted to betray both my queen and country. But, if God had not put me back, and arrested me by contrary winds and tempests this last summer, I should have taught that proud king what effect his offers had wrought in me: and the longer the will of God and my sovereign do restrain me, with the greater interest I hope to pay him in the end.

But



But our peace-makers may alledge, that times are changed, and with the times the humours of princes and affairs of state do commonly change: so as, though heretofore there was no trust to be given to the enemy's words, or said shews; yet now his humour, and the consideration of his own affairs, may dispose him to make peace. For my part, ere I can believe he is of such a peaceable humour, I must know how his ambitious and revengeful humours are satisfied, or quenched. Satisfied they cannot be; for he hath received overthrows in encounters, ill success in his attempts, and loss and scorn in all the wars he hath had with her majesty. Quenched they are not like to be; for if apprehension of death would have quenched them, he would not the last year, when he came newly out of that trance which was thought would have been his last swoon, have asked (the first word that he spake) whether the Adelarrado were gone for England. Or if remorse of conscience would have quenched them, he would not, in his devotions, being at mass, have vowed to be revenged on England, though he sold all those candlesticks upon the altar before him. Of the first of these speeches, myself, and some of my fellow counsellors have seen very credible advertisement out of Spain: and the second was delivered both to you and me, by the mouth of a principal Jesuit newly come from Spain. But we may well conclude, that this humour is not like to change. For he will never think he hath a sufficient part of the earth, till his mouth be full of earth; and some of his ghostly fathers, the Jesuits, will as well persuade him, that the invasions of other princes' kingdoms is a work of piety, as they do teach desperate conspirators, that to murder princes is the way to heaven. And if he should die to-morrow, his son's blood will be hotter, and his humour of ambition like to be greater, as having been bred in *domo regnatrice*: and his mind shews to be already sworn *veteri et insula Austriacae familiæ superbia*. So as, in his peaceable humours there being no hope, let us see what there is in the present state of their affairs.

Princes or states, when they enter into consideration of their own affairs, may dispose themselves to peace, for utility, convenience, or necessity. For utility, if they can get advantage: for convenience, if peace be fittest to conserve them in the state they are: for necessity, when they have no longer means to make war. That it is likely the king of Spain will make peace with us, because thereby he shall get advantage of us, our peace-makers will not agree; and if they do, it is our own fault if we fall into the pit that they shew us so plainly. That he should not be inclined to peace with England for convenience (if neither advantage entice him, nor necessity force him) I reason thus: All states do stand as much by reputation, as by strength; especially where their dominions are divided, and where a few of one nation give the law to great multitudes of many. Now, let the Indies, the Low Countries, Naples, Milan, and Sicily see, that Spain, which hath so long tyrannized over them, is glad (after so many overthrows, disgraces, and losses) to make peace with England upon equal terms, and they will know that Spaniards are but *bombres come los otros*; and that it hath been baseness in them, all this while, *servitum suam quotidie emere, quotidie pascere*. So that, I conclude, by such a peace Spain should lose all reputation of his arms, and terror of his greatness; and his countries would not be kept from rebelling by any possibility: and therefore convenience could not move him to make peace with us. That necessity, or want of means to make war, should drive him to it, I think it both improbable and impossible. Improbable, that he, who so lately assailed England, France, and the Low Countries, at once, having now broken the band of our league, and divided France from the other two, should think himself unable to maintain war with us. Impossible, that he should lack means; for wants he treasure to pay his army? His *partido* to pay his army is made with the Genoese for a great time to come. And as his enterprises are his subsidies to make his treasure run low, so his Indian returns are his stops that fill the banks again. Wants he men? Why, besides all his new levies, he hath those forces that were employed in France free to be used against us. Wants he victuals? Besides all the helps he was wont to have, he shall now, by the peace with France, have as much as he list. Wants he ships? He builds every day, and



## A N A P O L O G Y O F T H E

and may imbar in Spain as many as he will; and is now combining both with the Easterlings, and conspiring with them against us. So as, I conclude, which way soever I turn myself, I see no likelihood of his disposing himself to peace with us. And if no peace be to be had, then no treaty to be entered into. For, from him, by entertaining treaty, we can draw nothing, nor succour any body: whereas he may make us and our only confederates so jealous one of the other, as that, in striving to take the start, we strive who should lose themselves first. But if I allow our peace-makers their assurance of peace, let us see what is their purchase. If they can make any peace with Spain good for us, it must be by including our confederates of the Low Countries, or excluding them. But, I suspect, neither of these can be good or safe for us; therefore I judge they can make no good peace at all. To include the Low Countries in our peace, it is impossible; except they acknowledge the king of Spain (or him that shall claim under him, for their sovereign) as duke of Burgundy: which if they do, all things that shall give power to the enemy, shall bring slavery to the Netherlanders; and present danger upon us all will necessarily ensue. The reason is manifest. For when the authority of the General States, and the present form of government of the United Provinces shall be broken and dissolved, a monarchy set up, and a prince acknowledged, there shall nothing limit the prince's absoluteness but his own will. The strength of a contract cannot limit it; for neither will he keep faith with those he counteth hereticks, and calleth rebels; neither will they make any long delay to betray themselves. For province will strive with province, town with town, and man with man, who shall be most obsequious, and shew themselves most servile; all care of defence neglected by minds bewitched with the name of peace; all memory of former tyranny blotted out of the hearts resolved to accept a sovereign. Some will seek for charge of soldiers: some for magistracy in towns: some for gathering of custom, or handling of money: some for office of justice: some for benefices and spiritual livings: all for trade into Spain and the Indies. In brief, every man for private gain; and no man for publick safety. The magistrates and governors cannot limit it: for the chief men which now bear rule in martial and civil government, will provide by flight for their own safety. For if the brave count Egmont bought the trust and confidence in his majesty with no less than the price of his own head, what may any Low Country subject hope for? And when his memorable service, especially in those two famous battles of Gravelin and St. Quintin, and his putting himself into the Spaniards hands, could not overweigh the suspicion of combining himself with the revoltors, what hope of future merit shall weigh down the offence of those, who by counsel or action have maintained the state of the United Provinces against Spanish garrisons? Troops of soldiers cannot limit it; for there will be no means to pay them. When any thing above the king's ordinary rents or duties is demanded of the people, it will be answered, Is he our prince? Why do we acknowledge him for our prince? Is he our prince? Why do we armed against him like an enemy? Besides that, allow strangers on both sides, and the enemy will oppress them upon any sudden by force. For his means depend upon himself: the other (namely the States) upon a people that will be glad to spare their purse when they see no present wars; and the enemy's number will be far greater than the States. Banish strangers on both sides, and the enemy will oppress them suddenly upon every occasion, being strengthened with Espaniolized Netherlanders; and the States defended by such only as shall take oath to the enemy. Separation of other princes cannot limit it; and States will be oppressed on a sudden, when their helps will come too late. And those princes that were glad to make peace, when the enemy was weak, themselves being united, and the Low Countries flourishing, will not begin a new quarrel when the enemy's strength is recovered, themselves divided, and the Low Countries lost. Yet these, which I have named, are the best assurances that either our peace-makers can propound, or the United Provinces receive. I will add farther, that as it is certain, that no peace is to be had for the United Provinces, except a sovereign be acknowledged; so is it without all doubt, they cannot be included, except the Popish religion be either universally established, or, at least, freely exercised in the towns and provinces, whence it is now banished.



Allow the first, and they banish God's true service to bring in idolatry: they leave the truth to receive falsehood: they refuse the protection of the most merciful Lord of Heaven, to win the favour of the most tyrannical prince on earth. Allow but the second (a plurality of religions) which is less, and it is against the policy of all states; because where there is no unity in the church, there can be no unity or order in the state: yea, it is the manifest ruin of that state. For, as the mingling of poison with wholesome liquor in one vessel doth not correct that which is lethal, but corrupts that which is wholesome; so the poisoned doctrine of those venifical Espaniolized Jesuits, once brought in, will quickly leave no one professor in all the United Provinces. So that, I conclude, it were both folly and impiety for them to make any such peace, or for us to draw them to it; yea, more folly in us, than ever was committed by any state. For what will not the enemy be able to do upon us, when, besides the forces he now hath, he shall have a whole country in his hands able to find him sixty or eighty thousand soldiers, three hundred ships of war, besides infinite number of transporting vessels, and commodious ports, that are but a day's sailing from the very heart of England?

But the Low Countries shall be given to the Infanta, and she married to the archduke Albert, and so that state divided from the crown of Spain: and in a far safer hand for the disuniting of them. I answer, the Infanta is, if the king of Spain have no children, to be heir to her brother, and her brother likewise to her; and then are those states united. The only likelihood of their remaining severed is, if they both have children. And yet, since almost none of that house may marry farther than cousin-germans, I see not why we should not suspect their conjunction by such a match. But allow them severed: is not Albert son-in-law to the present king, and brother-in-law to the future? Is he not to be backed by the force of Spain, and maintained by the purse of Spain? Will he not serve a Spanish king's turn, as well to join in war against England, as the duke of Savoy (that married the other sister) did in a war against France? Nay hath he not a suspected strength of his own, by being brother to the present emperor, and not unlike to be emperor himself hereafter? Nay, is not the Infanta the same person, whose title to the crown of England Parsons so laboureth to prove? Is not the Low Countries the rise by which she may leap into England? Is not such a peace, as this in hand, the only means to assure her of all the Low Countries? Is not the army, which is now under her new husband, the force on which the enemy for the enterprise of England must set his rest? Yes, yes, this coherence is manifest, and their design clearly discovered: and it is too plain what is like to be expected of our peace, if we include the Low Countries. Let us now examine how good it will be if we abandon them. I have ever thought that such a peace may be good for us, if they that persuade unto it, can persuade three things: first, that they of the Low Countries may have both will and strength to maintain the war, though we make peace: secondly, that, so we leave them, we may have good conditions for ourselves: and thirdly, as our affairs now stand, how a neutrality can be possibly kept by us, while the United Provinces and the enemy shall be in war together. In the will of the Low Countries to continue in war, and to refuse all conditions that the enemy shall offer, I understand the resolution of the council and governors of the state, and the conformity of the people to such a resolution. In their strength, I mean as well the strength of the governors to force the people if they be adverse, as the strength and sufficiency of their means to endure so sharp and great a war as will fall upon them.

Of the chief governors resolving there may be these doubts: that they be tempted with the enemy's offers (who, if he can, will purchase them severally, that he may reduce them universally) and that they shall be terrified with the danger of the council. For it both sounds harshly beforehand, and it is like to fall out unsuccessfully at the very first; the enemy being so much master of the field, as some places may easily be carried. I know they do pretend to be resolute on war, and protest against giving ear to treaty: but that may be either to

Vol. I. 7 B move



## AN APOLOGY OF THE

move us by example, or to make us leave pressing of them to treaty, or to seem to hold out to the very last; that we rather may be thought to have undone them, than they to undo themselves. But if they, upon mature deliberation, should chuse the continuance of the wars, as the less of the two evils; yet that the people will be like affected, it is not probable. For, when a people, that hath been long tired with the misery of war, shall hear the pleasing name of peace; when they, which had two mighty princes joined with them in a strait offensive and defensive league, shall see themselves abandoned, first by France, and then by England; when on the one side, for the maintenance of the war, they shall have great and new contributions demanded of them; and on the other side, they shall be offered all plausible conditions of peace; nay, when they see that England, by making peace, shall get the trade of Spain from them, and they alone, by standing out, shall be barred of that navigation which hath made them so mighty in shipping, and so increased in riches: what then the multitude is like to chuse, it is easy to judge. And if the people be not conformable of themselves, how by authority of the governors of the states (which are called the General States) they may be enforced, I do not well see. First, because it is not an absolute and necessary, but a limited and voluntary obedience which they yield: secondly, because their state hath not (as the state of Rome had, or as the state of Venice hath) one place, which as the head doth command and direct all the parts of the body; but is compounded of equal parts. Zealand is as absolute as Holland; and Friezland as either of them; yea, not only the least province, but even the least town holds itself to have a kind of sovereignty, and will have as free a voice as the greatest. Thirdly, because of their former manner of proceedings; which hath not been to send commandments to bind, but deputies to persuade: not to resolve and conclude in their greatest causes in any one council or assembly, but to sound and feel the disposition of every province, and so to win them to like of that they have devised of. And, because even amongst themselves for the time they are general states, there is not like to be unanimity in opinion. And then, though they that dissent, being few, will not bear the envy to stand in council against the greater part; yet it is easy for them, when they come home, to work in their peculiar provinces and towns such a distaste of that which shall be generally propounded to all, as that the resolution will stick, and the whole business be overthrown; it being unsafe for them to deny liberty of voice to any, since liberty is the true cause of their taking arms, and standing out against the common enemy. But admit, both by the governors and people it were resolved that the Low Countries alone should continue in war, how are their means, or is their strength likely to maintain war? Of all foreign help they are utterly destitute: France makes no division: England can yield no succours: and in all christendom there is no other prince or state likely or able to back them. Their own means and ability grows either by the fruits of the earth, or by traffick or merchandize. For the fruits of the earth, that means is like to be small: for the enemy being master of the field, and able to divide his forces into divers places, will every day either win from them part of that they now hold, or, at least, so infect those parts that are in the states obedience, as, except it be in Holland and Zealand (which the enemy cannot get) husbandry will be ill followed and yield little profit. And as for their means by traffick, it is unlikely that merchants, that may remove their dwellings to peaceable places near hand (where they may have safe and free trade) will remain in the Low Countries; which only, of all these parts of christendom, is in war. And if they do keep their dwellings, yet will the Spaniard, without all doubt, banish them from trade into Spain (when both the French, English, and the Eastlings shall supply him) and will seek to banish and impeach them of all other trades as much as he can; pretending that they now are the only perturbors of the peace of christendom. So as I conclude, when I think with myself, what the governors of the state of the United Provinces are like to resolve, what the people in general will be like to desire; how hardly the multitude can be forced against their liking, or the means of the Low Countries make them subsist of themselves; I

see



see nothing but danger ; and that the enemy will shortly and suddenly be master of all that country : which how much that importeth us to prevent, it hath before been made plain.

I will now consider what conditions we are like to have for ourselves, so that we will forsake our confederates. Restitution of places we cannot demand, as France did ; for the enemy holds none of ours. Reparation of damage we as little seek for ; for from him we have sustained no loss. And trade into the Indies our zealous peace-makers will not stand for, lest the enemy offended will grant no peace at all. Traffick into Spain or Portugal we shall have, and that is the only condition that carries any shew of advantage to us. But if we do well consider how greedy our merchants will be of such a trade at the first, and how easy it will be for a faith-breaking king and enemy to confiscate all our countrymens goods, and to imbar and use English shipping against England, we would not brag too much of that advantage. But on the other side, he will require alterations in our government, or in the execution of our laws for matter of religion ; delivering up the towns her majesty holds in the Low Countries ; and reparations of all damages sustained by the wars. The first is a condition only fit for a conqueror to impose, and unfit for a brave state (that in all the wars hitherto hath had the better) once to hear mentioned. The second should never be asked of a queen to just, as she will not yield up the keys of a country delivered her by her best confederates, into the hands of her greatest enemy ; nor of a prince so wise, as she will not add strength to him whose strength already she holds so much suspected ; nor yet enable him to invade, whose ambition and malice thirsteth after both invasion and conquest. The third condition is impossible to be granted. For the loss which the king of Spain hath received in these wars, amounteth to a greater sum than the treasure of all the kings in christendom. If it be asked, how I know that these conditions will be demanded ? I answer, that I learn Albertus's mind of Albertus himself, and the Spanish conditions out of the instructions given to the Spanish commissioners. If it be said, that though it appear by the intercepted letters and instructions, that such conditions should be asked ; yet it was never meant that they should be insisted upon : I answer, that in the instructions to the Spanish commissioners it is expressly set down, in the first and third condition, That the legate shall be pressed to urge the French king to stand with them in obtaining them : and for the second, if the English commissioners did cut off all hope of delivering the towns, that then the treaty shall instantly break off : which is as much as if they should say, Except the English will give us the keys of the Low Countries (whereby we may reduce them) and let us have the port of Vlissing (in which our galleys may winter, and from which we may set out our fleet for the conquest of England, whenever we will break) we will have no peace with England for a time. But if it be granted, that the Low Countries will maintain the wars alone, and that Spain will grant us good conditions, so we will abandon the states ; how will it then appear, that it is possible for us betwixt these two to hold a neutrality ? If we do not the United Provinces some favour underhand, or, at least, by letting them be served by such of our nation as will voluntarily offer themselves to them, their state cannot be maintained, nor they kept our friends, whom we suffer to perish. On the other side, if we do them in this kind, or in any other, any favour which shall keep them from perishing, we give Spain and the archduke a just occasion of quarrel, and so make them (of our new friends) become our enemies. Besides, her majesty hath bestowed in the action of the Low Countries at the least four millions of crowns : and she hath in pawn for the debt which the states owe her, the towns of Vlissing and the Brill. To reimburse that which is due, and maintain the wars, the states are utterly unable. To deliver the towns without reimbursement, were utterly to lose all the treasure lent, and the authority and bridle which her majesty hath upon that people ; which is one of the greatest securities of her estate. To keep them, especially Vlissing, and to remain in neutrality (to my understanding) seems altogether impossible. For when the enemy shall see, that neither by treaty, nor by the offer of his large

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conditions, the states will be won, he will assail them by force; yea he will take that way which shall be shortest and easiest for the reduction of the whole; which will be to bring his galleys into their rivers, and to transport his men into the islands. For so, by piccing into Zealand, he shall make his way into Holland; and if he have once good footing in these two provinces, he is straight master of all that whole state. If Vlissing (which is the only bulwark against islanders) and the castle of Kempskins (which commandeth the river of Slade) shall not impeach nor offend the enemy, he will carry all the rest of the islands of Watreven, and so consequently all Zealand. If after he is become her majesty's friend, he be used as an enemy by the places she holds, the peace is broken.

But though it were proved never so fully, that the peace, which we may have (if we may have any at all) is full of dangers and inconveniencies, yet some are so zealous of it, as they will say, it is the misery of our state that we can neither have a good peace, nor a good war; and of two evils it is better to have a patched peace, than an unsupportable war. But injurious are these men to the men of war (that fight for them and defend them) in thinking their arms (which have ever done honour to our nation, and struck terror into the hearts of our enemies) less able to defend our country than their treaties; which have never been free from scorn and disadvantage. Injurious they are to the country that hath bred them: which being one of the bravest, strongest, and happiest states in christendom, is judged by these men to be as weak as their own weak hearts: injurious they are to her majesty; who, being so great, so glorious, and so victorious a queen, shall be judged unable to maintain war, when she cannot have peace, but at the pleasure of her enemy. Yea, injurious and most unthankful are they to God himself (who hath hitherto fought for them) in that (for an unsafe peace with an idolatrous and irreligious nation) they would leave an honourable and just war. When they have done all they can, if the enemy will not conclude peace, we must have war: and shall not reasonable men be persuaded, as well by necessity of reason, as by necessity of fortune? But wherein do they find such insufficiency to maintain the war? Our navy, as also that of our confederates, were never stronger; nor the enemy in shipping half so weak. Our men, generally, were never so martial, nor ever had so many able leaders: our confederates of the Low Countries (who, being firmly knit unto us, are of more use than all the friends in christendom that we ever had, or can have) they, I say, were never more resolute. France hath felt it, and we are eased of many charges, and shall make war in fewer places. Ireland is chargeable: that charge may well be born, when it is almost the sole burden that lies upon us. Yet, if there be any weakness in our means to make war, it is in our treasure. But if it be considered, how for this present year Spain hath no ability to assail us; how the next year the yearly subsidies will begin to be paid; how in France we have an end of all charges, and are now to receive reimbursement of all that is due; how in the Low Countries her majesty's expences may likewise cease, and she receive some help towards her other charges; yea, and though her majesty's treasure be drawn deep into, and the poor husbandman, by these late hard years past, hath now scant left any means to live: yet if our sumptuous buildings, our surfeiting diet, our prodigality in garments, our infinite plate, and costly furniture of our houses, be well considered, England cannot be thought poor. Can we exceed all nations in christendom in wasteful vanities, and can we not arm ourselves against one nation (which we have ever beaten) for our necessary defence? Was Rome so brave a state, as that the very ladies, to supply the common treasure, and to maintain the wars, spoiled themselves of their jewels and rich ornaments, and is England so base a state, as that the people therein will not bestow some part of their superfluous expences to keep themselves from conquest and slavery? Did the godly kings and religious people, which we read of in the Old Testament, to maintain the wars against the enemies of God, sell the ornaments of the temple and things consecrated to holy uses, and shall we, that have as holy a war, spare those things which we have dedicated to our idle and sensual pleasures? Could our own nation, in those gallant former ages, when  
our



our country was far poorer than now it is, levy armies, maintain wars, achieve great conquests in France, and make our powerful arms known as far as the Holy Land, and is this such a degenerate age, as we shall not be able to defend England? No; there is yet left some seed of that ancient virtue. Remember with what spirit and alacrity the gentlemen of England have put themselves voluntarily into our late actions. There will ever be found some Valerij, which (so the state may stand and flourish) care not though they leave not wherewith to bury themselves; though others bury their money, not caring in what case they leave the state.

We, thanks be to God, have a queen who hath never been wasteful in her private expence; yet will she sell her plate and jewels in the Tower ere her people shall be undefended. We are a people that will turn our silk coats into iron jackets, and our silver plate into coats of plate, rather than our sovereign shall be unserved. But why should either prince or people be put to that extremity? If her majesty will but be pleased to bestow sixty thousand pounds a year, which the Low Countries do cost her, and the twenty thousand pounds a year, which the states do offer her, and twenty thousand pounds a year more, which, I doubt not, may be drawn (by way of reimbursement) from the French king; this hundred thousand pounds a year, with half as much more bestowed by the states (who to engage her majesty in maintenance of the war will never shrink for their portion) this sum, I say, of one hundred and fifty thousand pounds a year, put into the hands of an honest and sufficient treasurer for the wars, and to be issued by a council of war well chosen, will fully and sufficiently maintain the war with Spain. Yea; if this be doubted, it shall be made plain, that with one hundred and fifty thousand pounds a year such a force shall be maintained, as, her majesty having a convenient number of her own ships, and repairing and furnishing them, as yearly she doth, the enemy shall bring no fleet into these seas, for England, Ireland, or the Low Countries, but it shall be beaten; nor seek to gather one into Spain, but the parts of it shall be defeated before the whole be assembled. Yea, those services shall be done upon the enemy, that the poorest prince or state in christendom shall have little cause to fear his malice. But of this question, whether we should judge the peace good for us which our peace-makers would procure, I have entreated of sufficiently. I now come to the last question and main matter of all; Whether they do enter into the treaty of it with due circumstances? And herein my purpose is not to stand upon complimentary circumstances, or points of honour, which in their proper time and place are worthy of due consideration: but the material circumstances which any prince or state should weigh before they enter into any treaty, I judge to be these: the time of treating (whether it yield most advantage for peace or war;) the persons of the treaters (whether the enemy with whom we treat may make advantage or no, by pretence, if nothing be concluded;) the assurance of the treaty, or strength of the knot that is tied; and how the state and condition were like to be, whensoever it breaks off and dissolves. The only reason whereby they that would have peace, do use to prove, that this season is fittest, and yields most advantage for peace is, that now the king of Spain is so weak and poor, as he will now be brought to that, which he neither would heretofore, nor will hereafter ever agree unto: therefore (say they) now is the only time for peace. But sure, except they were better logicians, and could frame better arguments, I should scarce wish them to be trusted with arguing for a peace. Their conclusion is directly contradictory to their own proposition. For now, of all other times, is he most unable to encounter us in war? then is this (of all other times) our fittest season to make war. Is this the season he chuseth to recover himself by peace? then, of all other times, peace should now be least granted him. Now, now is the fittest time to make war upon the Spaniard. His losses are not yet recovered, his coffers not filled, his fleet not made, his sea provisions not supplied, his Indies not quiet, and his son-in-law, as yet (in his new sovereignty) not fully settled. But her majesty's late victories have made way for her greater and far higher attempts. Terror accompanies the powerfulness of her armies; fear possesseth the hearts of



her enemies; and God himself, by her success, hath judged her cause. All the world hath seen what hath happened of her late actions past; and the common conclusion is, *Victoriae causa this placuit*. On the other side, now (of all times) is the unfittest season to make peace; when the state of our best confederates is so undermined by practice, threatened with force, and solicited to their own undoing by foreign princes, as that, except we both encourage them and cleave fast to them, their ruin is at hand. Now it is no time to make peace with the chief enemy of our religion; when a conspiracy is in hand against all the professors of it. The news is too ripe, and too credible, that this undertaking pope (after victories so glorious in Tenera, and his powerful reconciling of two so great kings in the heat of so great a war) will not now leave until he make a general league against all such as do not, or will not acknowledge the omnipotency of his bulls. Now if we shew ourselves so weak, as that we follow not the advantage we have, we shall hereafter be thought so weak as we may have any conditions imposed upon us. Now if we refuse the conditions, which our friends will offer to purchase our constancy, we must hereafter resolve to take such conditions as the enemy will give, though it be to our loss. Now, if we will flatter ourselves, that our agreeing to peace when the enemy desires it, can make a sound and durable league betwixt us, we shall undoubtedly find, when it is too late, that *Inter victos victoribus nunquam solida fides coalescit*. Add unto the circumstance of time the circumstance of persons, and it will appear, that the pretence and beginning to treat of peace, without concluding, is like to be very gainful to the enemy, and prejudicial to us. For if he which now is not able to guard his Indian fleet, may (while we are talking) have but one or two returns in safety: if he which now feels the strength of England and the Low Countries as they are united, can for the present sever them in council and affection, that he may hereafter more easily divide them in parts: if he that never wants malice (but now wants strength) can bring us asleep with the sweet name of peace, till he may rouse us from sleep by a thundering war; his gain and our loss (by this bare pretence) will quickly appear. Then for assurance, we give the enemy as good as he can desire. For in forbearing him when he is weakest, and letting go our advantages when they are greatest, we plainly shew, that nothing can draw us to war if we may have peace. But, on the other side, if a nation that never treated with us but to deceive us (and thinks our religion but heresy, our church schismatical, and our queen excommunicated; so as by their own principles they are neither to keep faith with us, nor to let us receive any good by them) shall make a contract with us, what assurance, I say, can we have of such an enemy, and in such a bargain? Forsooth, first to deceive us and serve their own turn by making a peace: and then breaking it, they hold it no fault: next, if they did, the pope's dispensation will take it away: and lastly, though the Spaniard bear a face and make a great shew of faith, and will not seem voluntarily to break it; yet, when his turn is served, the pope may so charge him to break with us, as conscience and obedience shall cover his malice and perfidiousness. Last of all, let us consider what our estate and condition is like to be, whensoever this running knot, or unsure contract doth break or dissolve. Are we breakers? then say boldly, that we discover how grossly we have been cozened, and how far the enemy's proud and mischievous designs are advanced. Doth the enemy break? then think that his mines into our state are all made; and that when he makes them play, he will quickly after give the assault. His fleet that now is weak, shall be supplied both with these galleons he builds, and with all the good ships of christendom that will be either bought or hired: his coffers, that now are empty, will be so full of treasure, as he will be able not only to trouble kingdoms by war, but to purchase them with money: his ministers and best instruments for practice, that dare not now venture themselves to come over, shall then have free access; and our hollow-hearted male-contents (if we have any) that now want traffick, will be then ready and consent to entertain any practice: the Low Countries, that are now his strong enemies, either universally by treaty, or in part by conquest, shall be reduced to be his

obedient



obedient subjects: our victories will be forgotten: these men of war we now have either driven to seek new countries and new fortunes, or consumed in a beggarly and miserable Irish war: our nation grown generally unwarlike; in love with the name, and bewitched with the delights of peace: and the Spaniard's courage recovered, together with his strength; which is the natural root of all true confidence.

These, these (worthy Mr. Bacon) are my apprehensions and doubts, that make me afraid to treat. Let these be answered, cleared, and resolved; or let any man shew me how he shall have an honourable, safe, and durable peace, and I will embrace both it and him with both mine arms: but till then I say,  
*Iustum iis bellum, quibus necessarium; et pia arma, quibus nulla nisi in armis*  
*spes est.*

Remember how Bernardino Mendoza spent his time while he was in England.



T H E



# \* P R O C E E D I N G S O F T H E E A R L O F E S S E X.

The points of form worthy to be observed.

THE fifth of June in Trinity term, upon Thursday, being no Star-chamber day, at the ordinary hour when the courts sit at Westminster, were assembled together at the lord Keeper's house in the great chamber, her majesty's privy-council, enlarged and assisted for that time and cause by the special call and associating of certain selected persons, *viz.* four earls, two barons, and four judges of the law, making in the whole a council or court of eighteen persons, who were attended by four of her majesty's learned counsel for charging the earl; and two clerks of the council, the one to read, the other as a register; and an auditory of persons, to the number, as I could guess, of two hundred, almost all men of quality, but of every kind or profession; nobility, court, law, country, city. The upper end of the table left void for the earl's appearance, who, after the commissioners had sat a while, and the auditory was quiet from the first throng to get in, and the doors shut, presented himself and kneeled down at the board's end, and so continued till he was licensed to stand up.

*The names of the commissioners.*

Lord Archbishop,  
Lord Keeper, *etc.*

A declaration of her majesty's proceeding.

IT was opened, that her majesty being imperial, and immediate under God, was not holden to render account of her actions to any; howbeit, because she had chosen ever to govern, as well with satisfaction as with sovereignty, and the rather, to command down the winds of malicious and seditious rumours wherewith mens conceits may have been tossed to and fro, she was pleased to call the world to an understanding of her princely course held towards the earl of Essex, as well in heretofore protracting as in now proceeding.

The earl repairing from his government into this realm in August last, contrary to her majesty's express and most judicial commandment, though the contempt were in that point visible, and her majesty's mind prepared to a just and high displeasure, in regard of that realm of Ireland set at hazard by his former disobedience to her royal directions, yet kept that stay, as she commanded my lord only to his chamber in court, until his allegations might by her privy-council be questioned and heard; which account taken, and my lord's answers appearing to be of no defence (that shadow of defence which was offered consisted of two parts, the one his own conceit of some likelihood of good effects to ensue of the course held, the other a vehement and over-ruling persuasion of the council there, though he were indeed as absolutely freed from opinion of the

\* At York-House, in June 1600, prepared for queen Elizabeth by her command, and read to her by Mr. Bacon, but never published.



council of Ireland, as he was absolutely tied to her majesty's trust and instructions.) Nevertheless her majesty not unwilling to admit any extenuation of his offence; and considering the one point required advertisement out of Ireland, and the other further expectation of the event and sequel of the affairs there (and so both points asked time and protraction;) her majesty proceeded still with reservation, not to any restraint of my lord according to the nature and degree of his offence, but to a commitment of him, *sub libera custodia*, in the lord Keeper's house.

After, when both parts of this defence plainly failed my lord, yea and proved utterly adverse to him (for the council of Ireland in plain terms disavowed all those his proceedings, and the event made a miserable interpretation of them) then her majesty began to behold the offence in nature and likeness, as it was divested from any palliation or cover, and in the true proportion and magnitude thereof, importing the peril of a kingdom: which consideration wrought in her majesty a strange effect (if any thing which is heroical in virtue can be strange in her nature) for when offence was grown unmeasurably offensive, then did grace superabound; and in the heat of all the ill news out of Ireland, and other advertisements thence to my lord's disadvantage, her majesty entred into a resolution, out of herself and her inscrutable goodness, not to overthrow my lord's fortune irreparably, by publick and proportionable justice: notwithstanding, inasmuch as about that time there did fly about in London streets and theatres divers seditious libels; and Powles and ordinaries were full of bold and factious discourses, whereby not only many of her majesty's faithful and zealous counsellors and servants were taxed, but withal the hard estate of Ireland was imputed to any thing rather than unto the true cause (the earl's defaults) though this might have made any prince on earth to lay aside straightways the former resolution taken, yet her majesty in her moderation persisted in her course of clemency, and bethought herself of a mean to right her own honour, and yet spare the earl's ruin; and therefore taking a just and most necessary occasion upon these libels, of an admonition to be given seasonably, and as is oft accustomed; the last Star-chamber day of Michaelmas term, was pleased, that declaration should be made, by way of testimony, of all her honourable privy-council, of her majesty's infinite care, royal provisions, and prudent directions for the prosecutions in Ireland, wherein the earl's errors (by which means so great care and charge was frustrated) were incidently touched.

But as in bodies very corrupt, the medicine rather stirreth and exasperateth the humour than purgeth it, so some turbulent spirits laid hold of this proceeding in so singular partiality towards my lord, as if it had been to his disadvantage, and gave out that this was to condemn a man unheard, and to wound him on his back, and to leave justice her sword, and take away her balance, which consisted of an accusation and a defence; and such other seditious phrases; whereupon her majesty seeing herself interested in honour, which she hath ever sought to preserve as her eye, clear and without mote, was inforced to resolve of a judicial hearing of the cause, which was accordingly appointed in the end of Hilary term. At the which time, warning being given to my lord to prepare himself, he falling, as it seemed, in a deep consideration of his estate, made unto her majesty by letter an humble and effectual submission, beseeching her that that bitter cup of justice might pass from him (for those were his words;) which wrought such an impression in her majesty's mind, that it not only revived in her her former resolution to forbear any publick hearing, but it fetched this virtue out of mercy by the only touch, as few days after my lord was removed to further liberty in his own house, her majesty hoping that these bruits and malicious imputations would of themselves wax old and vanish: but finding it otherwise in proof, upon taste taken by some intermission of time, and especially beholding the humour of the time in a letter presumed to be written to her majesty herself by a lady, to whom, though nearest in blood to my lord, it appertained little to intermeddle in matters of this nature, otherwise than in course of humilily to have solicited her grace and mercy; in which letter, in a certain violent and mineral spirit of bitterness, remonstrance and representation is made to



her majesty, as if my lord suffered under passion and faction, and not under justice mixed with mercy; which letter, though written to her sacred majesty, and therefore unfit to pass in vulgar hands, yet was first divulged by copies everywhere (that being, as it seemeth, the newest and finest form of libelling) and since committed to the press: her majesty in her wisdom seeing manifestly these rumours thus nourished had got too great a head to be repressed without some hearing of the cause, and calling my lord to answer; and yet on the other side being still informed touching my lord himself of his continuance of penitence and submission, did in conclusion resolve to use justice, but with the edge and point taken off and rebated; for whereas nothing leaveth that teint upon honour (which in a person of my lord's condition is hardiest repaired) in question of justice, as to be called to the ordinary and open place of offenders and criminals, her majesty had ordered that the hearing should be *intra domos parietes*, and not *huc foras*. And whereas again in the Star-chamber there be certain formalities (not fit in regard of example to be dispensed with) which would strike deeper both into my lord's fortune and reputation; as the fine which is incident to a sentence there given, and the imprisonment of the Tower, which in case of attempts that touch the point of estate doth likewise follow; her majesty turning this course, had directed that the matters should receive, before a great, honourable, and selected council, a full and deliberate (and yet in respect) a private, mild, and gracious hearing.

All this was not spoken in one undivided speech, but partly by the first that spake of the learned counsel, and partly by some of the commissioners: for in this and the rest I keep order of matter, and not of circumstance.

*The matters laid to my Lord's charge.*

The matters wherewith my lord was charged were of two several natures; of an higher, and of an inferior degree of offence.

The former kind purported great and high contempts and points of misgovernment in his office of her majesty's lieutenant and governor of her realm of Ireland; and in the trust and authority thereby to him committed.

The latter contained divers notorious errors and neglects of duty, as well in his government as otherwise.

The great contempts and points of misgovernment and malversation in his office, were articulate into three heads.

The three principal articles.

- I. The first was the journey into Munster, whereby the prosecution in due time upon Tyrone in Ulster was overthrown: wherein he proceeded contrary to his directions, and the whole design of his employment; whereof ensued the consumption of her majesty's army, treasure and provisions, and the evident peril of that kingdom.
- II. The second was the dishonourable and dangerous treaty held, and cessation concluded with the same arch-rebel Tyrone.
- III. The third was his contemptuous leaving his government, contrary to her majesty's absolute mandate under her hand and signet, and in a time of so imminent and instant danger.

For the first, it had two parts; that her majesty's resolution and direction was precise and absolute for the northern prosecution, and that the same direction was by my lord, in regard of the journey to Munster, wilfully and contemptuously broken.

That her majesty's direction was precise and absolute for the northern prosecution.

It was therefore delivered, that her majesty, touched with a true and princely sense of the torn and broken estate of that kingdom of Ireland, entered into a most christian and magnanimous resolution to leave no faculty of her regal power or policy unemployed for the reduction of that people, and for the suppressing and utter quenching of that flame of rebellion, wherewith that country was, and is wasted: whereupon her majesty was pleased to take knowledge of the general conceit, how the former making and managing of the actions there had been taxed, upon two exceptions; the one, that the proportions of forces which

had



had been there maintained and continued by supplies, were not sufficient to bring the prosecutions to a period: the other, that the prosecutions had been also intermixed and interrupted with too many temporizing treaties, whereby the rebel did not only gather strength, but also find his strength more and more, so as ever such smothered broke forth again into greater flames. Which kind of discourses and objections, as they were entertained in a popular kind of observation, so were they ever chiefly patronized and apprehended by the earl, both upon former times and occasions, and now last when this matter was in deliberation. So as her majesty, to acquit her honour and regal function, and to give this satisfaction to herself and others, that she had left no way untried, resolved to undertake the action with a royal army and puissant forces, under the leading of some principal nobleman; in such sort, that, as far as human discourse might discern, it might be hoped, that by the expedition of a summer things might be brought to that state, as both realms may feel some ease and respiration; this her majesty made choice of my lord of Essex for that service, a principal peer and officer of her realm, a person honoured with the trust of a privy counsellor, graced with the note of her majesty's special favour, infallibly betokening and redoubling his worth and value, enabled with the experience and reputation of former services, and honourable charges in the wars; a man every way eminent, select and qualified for a general of a great enterprise, intended for the recovery and reduction of that kingdom, and not only or merely as a lieutenant or governor of Ireland.

My lord, after that he had taken the charge upon him, fell straightways to make propositions answerable to her majesty's ends, and answerable to his own former discourses and opinions; and chiefly did set down one full and distinct resolution, that the design and action, which of all others was most final and summary towards an end of those troubles, and which was worthy her majesty's enterprise with great and puissant forces, was a prosecution to be made upon the arch-traitor Tyrone in his own strengths within the province of Ulster, whereby both the inferior rebels which rely upon him, and the foreigner upon whom he relieth, might be discouraged, and so to cut asunder both dependances: and for the proceeding with greater strength and policy in that action, that the main invasion and impression of her majesty's army should be accompanied and corresponded unto by the plantation of strong garrisons in the north, as well upon the river of Loughfoile as a postern of that province, as upon the hither frontiers, both for the distracting and bridling of the rebels forces during the action, and again, for the keeping possession of the victory, if God should send it.

This proposition and project moving from my lord, was debated in many consultations. The principal men of judgment and service in the wars, as a council of war to assist a council of state, were called at times unto it; and this opinion of my lord was by himself fortified and maintained against all contradiction and opposite argument; and in the end, *ex unanimi consensu*, it was concluded and resolved that the axe should be put to the root of the tree: which resolution was ratified and confirmed by the binding and royal judgment of her sacred majesty, who vouchsafed her kingly presence at most of those consultations.

According to a proposition and enterprise of this nature, were the proportions of forces and provisions thereunto allotted. The first proportion set down by my lord was the number of 12000 foot and 1200 horse; which being agreed unto, upon some other accident out of Ireland the earl propounded to have it made 14000 foot, and 1300 horse, which was likewise accorded: within a little while after the earl did newly insist to have an augmentation of 2000 more, using great persuasions and confident significations of good effect, if those numbers might be yielded to him, as which he also obtained before his departure; and besides the supplies of 2000 arriving in July, he had authority to raise 2000 Irish more, which he procured by his letters out of Ireland, with pretence to further the northern service; so as the army was raised in the conclusion and list to 16000 foot, and 1300 horse, supplied with 2000 more at three months end, and increased with 2000 Irish upon this new demand; whereby her majesty at that

time



## THE PROCEEDINGS OF

time paid 18000 foot and 1300 horse in the realm of Ireland. Of these forces, divers companies drawn out of the experienced bands of the Low Countries, special care taken that the new levies in the country should be of the ablest, and most disposed bodies; the army also animated and encouraged with the service of divers brave and valiant noblemen and gentlemen volunteers; in sum, the vice of divers brave and complete troops that have been known to have been sent most flourishing and complete troops that have been known to have been sent out of our nation in any late memory. A great mass of treasure provided and issued, amounting to such a total, as the charge of that army, all manner of ways, from the time of the first provisions and setting forth, to the time of my lord's returning into England, was verified to have drawn out of the coffers, besides the charge of the country, the quantity of 300000l. and so ordered, as he carried with him three months pay before hand, and likewise victual, munition, and all habiliments of war whatsoever, with attendance of shipping allowed and furnished in a sortable proportion, and to the full of all my lord's own demands. For my lord being himself a principal counsellor for the preparations, as he was to be an absolute commander in the execution, his spirit was in every conference and conclusion in such sort, as when there happened any points of difference upon demands, my lord using the forcible advantages of the toleration and liberty which her majesty's special favour did give unto him, and the necessity and forwardness of his fellow-counsellors to the general cause, and the necessity of his then present service, he did ever prevail and carry it; insomuch as it was objected and laid to my lord's charge as one of his errors and presumptions, that he did oftentimes, upon their propositions and demands, enter into contestations with her majesty, more a great deal than was fit. All which propositions before mentioned being to the utmost of my lord's own askings, and of that height and greatness, might really and demonstratively express and intimate unto him, besides his particular knowledge which he had, as a counsellor of estate, of the means both of her majesty and this kingdom, that he was not to expect to have the commandment of 16000 foot and 1300 horse, as an appurtenance to his lieutenancy of Ireland, which was impossible to be maintained; but contrariwise, that in truth of intention he was designed as general for one great action and expedition, unto which the rest of his authority was but accessory and accommodate.

It was delivered further, that in the authority of his commission, which was more ample in many points than any former lieutenant had been vested with, there were many direct and evident marks of his designation to the northern action, as principally a clause whereby *merum arbitrium belli et pacis* was reposed in his sole trust and discretion, whereas all the lieutenants were ever tied unto the peremptory assistance and admonition of a certain number of voices of the council of Ireland. The occasion of which clause so passed to my lord for the notably disclose and point unto the precise trust committed to my lord for the northern journey; for when his commission was drawn at first according to former precedents, and on the other side my lord insisted strongly to have this new *prima facie* vast and exorbitant authority, he used this argument; that the province of Lemsfer and Munster; but that Ulster was abandoned from any such particular respects, whereby it was like, the council there would be glad to use her majesty's forces for the clearing and assuring of those territories and countries where their fortunes and estates were planted: so as, if he should be tied to their voices, he were like to be diverted from the main service intended: upon which reason that clause was yielded unto.

So as it was then concluded, that all circumstances tended to one point, that there was a full and precise intention and direction for Ulster, and that my lord could not descend into the consideration of his own quality and value; he could not muster his fair army; he could not account with the treasurer, and take consideration of the great mass of treasure issued; he could not look back, either to his own former discourses, or to the late propositions whereof himself was author, nor to the conferences, consultations, and conclusions thereupon, nor principally to her



her majesty's royal direction and expectation, nor generally to the conceit both of subjects of this realm, and the rebels themselves in Ireland; but which way soever he turned, he must find himself trusted, directed, and engaged wholly for the northern expedition.

The parts of this that was charged were verified by three proofs: the first, the most authentic but the least pressed, and that was her majesty's own royal affirmation, both by her speech now and her precedent letters; the second, the testimony of the privy council, who upon their honours did avouch the substance of that was charged, and referred themselves also to many of their lordships letters to the same effect; the third, letters written from my lord after his being in Ireland, whereby the resolution touching the design of the north is often known.

There follow some clauses both of her majesty's letters and of the lords of her The council, and of the earl's and the council of Ireland, for the verification of this proofs.

point.

Her majesty, in her letter of the 19th of July to my lord of Essex, upon the lingering of the northern journey, doubting my lord did value service, rather by the labour he endured, than by the advantage of her majesty's royal ends, hath these words:

"You have in this dispatch given us small light, either when or in what order  
"you intend particularly to proceed to the northern action; wherein if you com- Her ma-  
"pare the time that is run on, and the excessive charges that are spent, with the je-  
"effects of any thing wrought by this voyage (howsoever we remain satisfied the earl of  
"with your own particular cares and travails of body and mind) yet you must Essex 19th  
"needs think that we, that have the eyes of foreign princes upon our actions, July, im-  
"and have the hearts of people to comfort and cherish, who groan under the mediately  
"burden of continual levies and impositions, which are occasioned by these late after the  
"actions, can little please ourself hitherto with any thing that hath been ef- Munster  
"fected."

In another branch of the same letter, reflecting her royal regard upon her own honour interested in this delay, hath these words:

"Whereunto we will add this one thing that doth more displease us than any A second  
"charge or offence that happens, which is, that it must be the queen of Eng- clause of  
"land's fortune (who hath held down the greatest enemy she had) to make the earl of  
"base bush-kern to be accounted so famous a rebel, as to be a person against the same  
"whom so many thousands of foot and horse, besides the force of all the no- letter.  
"bility of that kingdom, must be thought too little to be employed."

In another branch, discovering, as upon the vantage ground of her princely wisdom, what would be the issue of the courses then held, hath these words:

"And therefore, although by your letter we found your purpose to go north- A third  
"wards, on which depends the main good of our service, and which we ex- clause of  
"pected long since should have been performed; yet because we do hear the same  
"bruited (besides the words of your letter written with your own hand, which it letter.  
"carries some such sense) that you who alledge such sickness in your army by

"being travelled with you, and find so great and important affairs to digest at  
"Dublin, will yet ingage yourself personally into Ophalie (being our lieutenant)  
"when you have there so many inferiors able, might victual a fort, or seek re-  
"venge against those who have lately prospered against our forces. And when  
"we call to mind how far the sun hath run his course, and what dependeth upon  
"the timely plantation of garrisons in the North, and how great scandal it would  
"be to our honour to leave that proud rebel unassayed, when we have with so  
"great an expectation of our enemies engaged ourselves so far in the action; so  
"that, without that be done, all those former courses will prove like *via navis*  
"*in mari*; besides that our power, which hitherto hath been dreaded by potent  
"enemies, will now even be held contemptible amongst our rebels: we must  
"plainly charge you, according to the duty you owe to us, so to unite found-  
"ness of judgment to the zeal you have to do us service, as with all speed to  
"pass thither in such sort, as the axe might be put to the root of that tree, which  
"hath been the treasonable stock from whom so many poisoned plants and grafts  
"have  
"Vol. I.  
7 E



" have been derived ; by which proceedings of yours, we may neither have  
 " cause to repent of our employment of yourself for omitting those opportuni-  
 " ties to shorten the wars, nor receive in the eye of the world imputation of so  
 " much weakness in ourself, to begin a work without better foresight what would  
 " be the end of our excessive charge, the adventure of our peoples lives, and the  
 " holding up of our own greatness against a wretch, whom we have raised from  
 " the dust, and who could never prosper, if the charges we have been put to  
 " were orderly employed."

Her ma-  
 jesty to  
 my lord of  
 Essex.  
 3<sup>rd</sup> July.  
 Her majesty in her particular letter written to my lord the 30<sup>th</sup> of July, bind-  
 eth, still exprely upon the northern prosecution, my lord *ad principalia reverti*,  
 in these words :

" First, you know right well, when we yielded to this excessive charge, it  
 " was upon no other foundation than to which yourself did ever advise us as  
 " much as any, which was, to assail the northern traitor, and to plant garrisons  
 " in his country ; it being ever your firm opinion, amongst other our council,  
 " to conclude that all that was done in other kind in Ireland, was but waste and  
 " consumption."

Her majesty in her letter of the 9<sup>th</sup> of August to my lord of Essex and the  
 council of Ireland, when, after Munster journey, they began in a new time to  
 dissuade the northern journey in her excellent ear, quickly finding a discord of  
 men from themselves, chargeth them in these words :

Her ma-  
 jesty to my  
 lord and  
 the coun-  
 cil of Ire-  
 land, 9<sup>th</sup>  
 August.  
 " Observe well what we have already written, and apply your counsels to that  
 " which may shorten, and not prolong the war ; seeing never any of you was  
 " of other opinion, than that all other courses were but consumptions, except we  
 " went on with the northern prosecution."

The lords of her majesty's council, in their letter of the 10<sup>th</sup> of August to my  
 lord of Essex and the council of Ireland, do in plain terms lay before them the  
 first plot, in these words :

The lords  
 of the  
 council to  
 my lord  
 and the  
 council of  
 Ireland,  
 10<sup>th</sup> Au-  
 gust.  
 " We cannot deny but we did ground our counsels upon this foundation,  
 " That there should have been a prosecution of the capital rebels in the North,  
 " whereby the war might have been shortened ; which resolution, as it was  
 " advised by yourself before your going, and assented to by most part of the  
 " council of war that were called to the question, so must we confess to your  
 " lordship, that we have all this while concurred with her majesty in the same  
 " desire and expectation."

My lord of Essex, and the council of Ireland, in their letter of the 5<sup>th</sup> of  
 May to the lords of the council before the Munster journey, write *in hæc verba*.

My lord  
 of Essex  
 and the  
 council of  
 Ireland to  
 the lords,  
 5<sup>th</sup> May.  
 " Moreover, in your lordships great wisdom, you will likewise judge what  
 " pride the rebels will grow to, what advantage the foreign enemy may take,  
 " and what loss her majesty shall receive, if this summer the arch-traitor be not  
 " assailed, and garrisons planted upon him."

My lord of Essex, in his particular letter of the 11<sup>th</sup> of July, to the lords of  
 the council, after Munster journey, writeth thus :

The earl  
 to the  
 lords, 11<sup>th</sup>  
 July.  
 " As fast as I can call these troops together, I will go look upon yonder proud  
 " rebel, and if I find him on hard ground, and in an open country, though I  
 " should find him in horse and foot three for one, yet will I by God's grace dis-  
 " lodge him, or put the council to the trouble of," *etc.*

The earl of Essex, in his letter of the 14<sup>th</sup> of August to the lords of the  
 council, writeth out of great affection, as it seemeth, in these words :

The earl  
 to the  
 lords, 14<sup>th</sup>  
 August.  
 " Yet must these rebels be assailed in the height of their pride, and our bale  
 " clowns must be taught to fight again ; else will her majesty's honour never be  
 " recovered, nor our nation valued, nor this kingdom reduced."

Besides it was noted, that whereas my lord and the council of Ireland, had,  
 by theirs of the 15<sup>th</sup> of July, desired an increase of 2000 Irish purposely for the  
 better setting on foot of the northern service ; her majesty, notwithstanding her  
 proportions, by often gradations and risings, had been raised to the highest eleva-  
 tion, yet was pleased to yield unto it.

1. The first part concerneth my lord's ingress into his charge, and that which  
 passed here before his going hence ; now followeth an order, both of time and  
 matter,



matter, what was done after my lord was gone into Ireland, and had taken upon him the government by her majesty's commission.

2. The second part then of the first article was to shew, that my lord did That my wilfully and contemptuously, in this great point of estate, violate and infringe her majesty's direction before remembred.

In delivering of the evidence and proofs of this part, it was laid down for a temporary foundation, that there was a full performance on her majesty's part of all the points agreed upon for this great prosecution, so as there was no impediment or cause of interruption from hence.

This is proved by a letter from my lord of Essex, and the council of Ireland touching the north to the lords of the council here, dated 9th May, which was some three weeks after my lord had received the sword, by which time he might well and thoroughly inform himself whether promise were kept in all things or no, and the words of the letter are these:

"As your lordships do very truly set forth, we do very humbly acknowledge The earl "her majesty's chargeable magnificence and royal preparations and transporta- of Essex tions of men, munition, apparel, money and victuals, for the recovery of this council of "distressed kingdom;" where note, the transportations acknowledged as well Ireland to as the preparations.

Next, it was set down for a second ground, that there was no natural nor accidental impediment in the estate of the affairs themselves, against the prosecution 9th May. upon Tyrone, but only culpable impediments raised by the journey of Munster.

This appeared by a letter from my lord and the council of Ireland to the lords The earl of the council here, dated the 28th of April, whereby they advertise, that the of Essex prosecution of Ulster, in regard of lack of grass and forage, and the poorness of council of cattle at that time of year, and such like difficulties of the season, and not of the Ireland to matter, will in better time, and with better commodity for the army, be fully of the executed about the middle of June or beginning of July; and signify, that the council, earl intended a present prosecution should be set on foot in Lemsfer: to which 28th of letters the lords make answer by theirs of the 8th of May, signifying her majesty's toleration of the delay.





A  
DECLARATION  
OF THE  
PRACTICES and TREASONS,

Attempted and committed by

ROBERT late Earl of Essex and his Complices,

AGAINST

Her MAJESTY and her Kingdoms;

AND OF

The Proceedings as well at the Arraignments and Convictions of  
the said late Earl, and his Adherents, as after :

TOGETHER WITH

The very Confessions, and other Parts of the Evidences themselves,  
word for word, taken out of the Originals.

Imprinted *anno* 1601 \*.

THOUGH publick justice passed upon capital offenders, according to the laws, and in course of an honourable and ordinary trial (where the case would have born and required the severity of martial law to have been speedily used) do in itself carry a sufficient satisfaction towards all men, specially in a merciful government, such as her majesty's is approved to be: yet because there do pass abroad in the hands of many men divers false and corrupt collections and relations of the proceedings at the arraignment of the late earls of Essex and Southampton; and again, because it is requisite that the world do understand as well the precedent practices and inducements to the treasons, as the open and actual treasons themselves (though in a case of life it was not thought convenient to insist at the trial upon matter of inference or presumption, but chiefly upon matter of plain and direct proofs;) therefore it hath been thought fit to publish to the world a brief declaration of the practices and treasons attempted and committed by Robert late earl of Essex and his complices against her majesty and her kingdoms, and of the proceedings at the convictions of the

\* Our author has abundantly vouched this Declaration, &c. to be penned by himself in the following passage of his *Apologety*:

“ It is very true also, about that time, her majesty taking a liking of my pen, upon that which I had formerly done concerning the proceeding at York-House, and likewise upon some other DECLARATIONS, which in former times by her appointment I put in writing, commanded me to pen that book, which was published for the better satisfaction of the world; which I did, but so, as never secretary had more particular and exprets directions and instructions in every point how to guide my hand in it: and not only so, but after I had made a first draught thereof, and propounded it to certain principal counsellors by her majesty's appointment, it was perused, weighed, censured, altered, and made almost a new writing, according to their lordships better consideration; wherein their lordships and myself both were as religious and curious of truth, as desirous of satisfaction: and myself indeed gave only words and form of style in pursuing their direction. And after it had passed their allowance, it was again exactly perused by the queen herself, and some alterations made again by her appointment: nay, and after it was set to print, the queen, who, as your lordship knoweth, as she was excellent in great matters, so she was exquisite in small; and noted that I could not forget my ancient respect to my lord of Essex, in terming him ever, *my lord of Essex*, *my lord of Essex*, almost in every page of the book; which she thought not fit, but would have it made *Essex*, or *the late earl of Essex*; whereupon, of force, it was printed *de novo*, and the first copies suppressed by her peremptory commandment.”

A 100000

said



said late earl and his adherents upon the same treasons: and not so only, but therewithal, for the better warranting and verifying of the narration, to set down in the end the very confessions and testimonies themselves word for word, taken out of the originals, whereby it will be most manifest that nothing is obscured or disguised, though it do appear by divers most wicked and seditious libels thrown abroad, that the dregs of these treasons which the late earl of Essex himself, a little before his death, did term a leprosy, that had infected far and near, do yet remain in the hearts and tongues of some misaffected persons.

THE most partial will not deny, but that Robert late earl of Essex was, by her majesty's manifold benefits and graces, besides oath and allegiance, as much tied to her majesty, as the subject could be to the sovereign; her majesty having heaped upon him both dignities, offices, and gifts, in such measure, as within the circle of twelve years, or more, there was scarcely a year of rest, in which he did not obtain at her majesty's hands some notable addition either of honour or profit.

But he on the other side making these her majesty's favours nothing else but wings for his ambition, and looking upon them not as her benefits, but as his advantages, supposing that to be his own metal which was but her mark and impression, was so given over by God (who often punisheth ingratitude by ambition, and ambition by treason, and treason by final ruin) as he had long ago plotted it in his heart to become a dangerous supplanter of that seat, whereof he ought to have been a principal supporter; in such sort as now every man of common sense may discern not only his last actual and open treasons, but also his former more secret practices and preparations towards those his treasons, and that without any gloss or interpreter, but himself and his own doings.

For first of all, the world can now expound why it was that he did aspire, and had almost attained unto a greatness, like unto the ancient greatness of the *præfatus prætorio* under the emperors of Rome, to have all men of war to make their sole and particular dependence upon him; that with such jealousy and watchfulness he sought to discountenance any one that might be a competitor to him in any part of that greatness, that with great violence and bitterness he sought to suppress and keep down all the worthiest martial men, which did not appropriate their respects and acknowledgments only towards himself. All which did manifestly detect and distinguish, that it was not the reputation of a famous leader in the wars which he sought (as it was construed a great while) but only power and greatness to serve his own ends, considering he never loved virtue nor valour in another, but where he thought he should be proprietary and commander of it, as referred to himself.

So likewise those points of popularity which every man took notice and note of, as his affable gestures, open doors, making his table and his bed so popularly places of audience to suitors, denying nothing when he did nothing, feeding many men in their discontentments against the queen and the state, and the like; as they were ever since Absalom's time the forerunners of treasons following, so in him were they either the qualities of a nature disposed to disloyalty, or the beginnings and conceptions of that which afterwards grew to shape and form.

But as it were a vain thing to think to search the roots and first motions of treasons, which are known to none but God that discerns the heart, and the devil that gives the instigation; so it is more than to be presumed (being made apparent by the evidence of all the events following) that he carried into Ireland a heart corrupted in his allegiance, and pregnant of those or the like treasons which afterwards came to light.

For being a man by nature of an high imagination, and a great promiser to himself as well as to others, he was confident that if he were once the first person in a kingdom, and a sea between the queen's seat and his, and Wales the nearest land from Ireland, and that he had got the flower of the English forces into his hands (which he thought so to intermix with his own followers, as the whole body should move by his spirit) and if he might have also absolutely into his own hands *potestatem vitæ et necis, et arbitrium belli et pacis*, over the rebels of Ireland,



## DECLARATION OF THE TREASONS

whereby he might entice and make them his own, first by pardons and conditions, and after by hopes to bring them in place where they should serve for hope of better booties than cows, he should be able to make that place of lieutenancy of Ireland as a rise or step to ascend to his desired greatness in England.

And although many of these conceits were windy, yet neither were they the less like to his; neither are they now only probable conjectures or comments upon these his last treasons, but the very preludes of actions almost immediately subsequent, as shall be touched in due place.

But first, it was strange with what appetite and thirst he did affect and compass the government of Ireland, which he did obtain. For although he made some formal shews to put it from him; yet in this, as in most things else, his desires being too strong for his dissimulations, he did so far pass the bounds of decorum, as he did in effect name himself to the queen by such description and such particularities as could not be applied to any other but himself; neither did he so only, but farther he was still at hand to offer and urge vehemently and peremptorily exceptions to any other that was named.

Then after he once found that there was no man but himself (who had other matters in his head) so far in love with that charge, as to make any competition or opposition to his pursuit, whereby he saw it would fall upon him, and especially after himself was resolved upon; he began to make propositions to her majesty by way of taxation of the former course held in managing the actions of Ireland, especially upon three points; the first, that the proportions of forces which had been there maintained and continued by supplies, were not sufficient to bring the prosecutions there to period. The second, that the axe had not been put to the root of the tree, in regard there had not been made a main prosecution upon the arch-traitor Tyrone in his own strength, within the province of Ulster. The third, that the prosecutions before time had been intermixed and interrupted with too many temporizing treaties, whereby the rebel did ever gather strength and reputation to renew the war with advantage. All which goodly and well-sounding discourses, together with the great vaunts, that he would make the earth tremble before him, tended but to this, that the queen should encrease the list of her army, and all proportions of treasure and other furniture, to the end, his commandment might be the greater. For that he never intended any such prosecution, may appear by this, that even at the time before his going into Ireland he did open himself so far in speech to Blunt, his inwardest counsellor, That he did assure himself that many of the rebels in Ireland would be advised by him: so far was he from intending any prosecution towards those in whom he took himself to have interest. But his ends were two; the one, to get great forces into his hands; the other, to oblige the heads of the rebellion unto him, and to make them of his party. These two ends had in themselves a repugnancy; for the one imported prosecution, and the other treaty: but he that meant to be too strong to be called to account for any thing, and meant besides, when he was once in Ireland, to engage himself in other journeys that should hinder the prosecution in the North, took things in order as they made for him; and so first did nothing, as was said, but trumpet a final and utter prosecution against Tyrone in the North, to the end to have his forces augmented.

But yet he forgot not his other purpose of making himself strong by a party amongst the rebels, when it came to the scanning of the clauses of his commission. For then he did insist, and that with a kind of contestation, that the pardoning, no not of Tyrone himself, the capital rebel, should be excepted and reserved to her majesty's immediate grace; being infinitely desirous that Tyrone should not look beyond him for his life or pardon, but should hold his fortune as of him, and account for it to him only.

So again, whereas in the commission of the earl of Sussex, and of all other lieutenants or deputies, there was ever in that clause, which giveth unto the lieutenant or deputy that high or regal point of authority to pardon treasons and traitors, an exception contained of such cases of treason as are committed against the person of the king: it was strange, and suspiciously strange even at that time, with what importunity and instance he did labour, and in the end prevailed to have

The commission of  
Blunt. 3.



have that exception also omitted, glossing then, that because he had heard that by strict exposition of law (a point in law that he would needs forget at his arraignment, but could take knowledge of it before, when it was to serve his own ambition) all treasons of rebellion did tend to the destruction of the king's person, it might breed a buzz in the rebels heads, and so discourage them from coming in: whereas he knew well that in all experience passed, there was never rebel made any doubt or scruple upon that point to accept of pardon from all former governors, who had their commissions penned with that limitation (their commissions being things not kept secretly in a box, but published and recorded) so as it appeared manifestly that it was a mere device of his own out of the secret reaches of his heart then not revealed; but it may be shrewdly expounded since, what his drift was, by those pardons which he granted to Blunt the marshal, and Thomas Lee, and others, that his care was no less to secure his own instruments than the rebels of Ireland.

Yet was there another point for which he did contend and contest, which was, that he might not be tied to any opinion of the council of Ireland, as all others in certain points (as pardoning traitors, concluding war and peace, and some other principal articles) had been before him; to the end he might be absolute of himself, and be fully master of opportunities and occasions for the performing and executing of his own treasonable ends.

But after he had once, by her majesty's singular trust and favour toward him, obtained his patent of commission as large, and his list of forces as full as he desired, there was an end in his course of the prosecution in the North. For being arrived into Ireland, the whole carriage of his actions there was nothing else but a cunning defeating of that journey, with an intent (as appeared) in the end of the year to pleasure and gratify the rebel with a dishonourable peace, and to contract with him for his own greatness.

Therefore not long after he had received the sword, he did voluntarily ingage himself in an unreasonable and fruitless journey into Munster, a journey never propounded in the council there, never advertised over hither while it was past: by which journey her majesty's forces, which were to be preserved intire both in vigor and number for the great prosecution, were harassed and tired with long marches together, and the Northern prosecution was indeed quite dashed and made impossible.

But yet still doubting he might receive from her majesty some quick and express commandment to proceed; to be sure he pursued his former device of wrapping himself in other actions, and so set himself on work anew in the county of Ophaley, being resolved, as is manifest, to dally out the season, and never to have gone that journey at all: that setting forward which he made in the very end of August being but a mere play and a mockery, and for the purposes which now shall be declared.

After he perceived that four months of the summer, and three parts of the army were wasted, he thought now was a time to set on foot such a peace as might be for the rebels advantage, and so to work a mutual obligation between Tyrone and himself; for which purpose he did but seek a commodity. He had there with him in his army one Thomas Lee, a man of a seditious and working spirit, and one that had been privately familiar and intirely beloved of Tyrone, and one that afterwards, immediately upon Essex open rebellion, was apprehended for a desperate attempt of violence against her majesty's person; which he plainly confessed, and for which he suffered. Wherefore judging him to be a fit instrument, he made some signification to Lee of such an employment, which was no sooner signified than apprehended by Lee. He gave order also to Sir Christopher Blunt, marshal of his army, to license Lee to go to Tyrone, when he should require it. But Lee thought good to let slip first unto Tyrone (which was nevertheless by the marshal's warrant) one James Knowd, a person of wit and sufficiency, to sound in what terms and humours Tyrone then was. This The knowd returned a message from Tyrone to Lee, which was, That if the earl of Essex would follow Tyrone's plot, he would make the earl of Essex the greatest Lee. <sup>Thomas</sup> man that ever was in England: and farther, that if the earl would have conference



## DECLARATION OF THE TREASONS

ference with him, Tyrone would deliver his eldest son in pledge for his assurance. This message was delivered by Knowd to Lee, and by Lee was imparted to the earl of Essex, who after this message employed Lee himself to Tyrone, and by his negotiating (whatsoever passed else) prepared and disposed Tyrone to the parley.

And this employment of Lee was a matter of that guiltiness in my lord, as, being charged with it at my lord Keeper's only in this nature (for the message of Knowd was not then known) that when he pretended to assail Tyrone, he had before underhand agreed upon a parley, my lord utterly denied it that he ever employed Lee to Tyrone at all, and turned it upon Blunt, whom he afterwards required to take it upon him, having before sufficiently provided for the there de-securty of all parts, for he had granted both to Blunt and Lee pardons of all clare that treasons under the great seal of Ireland, and so, himself disclaiming it, and they he had

Essex his being pardoned, all was safe.  
 But when that Tyrone was by these means (besides what others, God know,) warrant to send Lee, prepared to demand a parley, now was the time for Essex to acquit himself and after of all the queen's commandments, and his own promises and undertakings for the Northern journey; and not so alone, but to have the glory at the disadvantage of the year, being but 2500 strong of foot, and 300 of horse, after the take it up-fresh disaster of Sir Conyers Clifford, in the height of the rebels pride, to set forth to assail, and then that the very terror and reputation of my lord of Essex person was such, as did daunt him and make him stoop to seek a parley; and this was the end he shot at in that September journey, being a mere abuse and bravery, and but inducements only to the treaty, which was the only matter he intended. For Essex drawing now towards the catastrophe, or last part of that tragedy, for which he came upon the stage in Ireland, his treasons grew to a farther ripeness. For knowing how unfit it was for him to communicate with any English, even of those whom he trusted most, and meant to use in other treasons, that he had an intention to grow to an agreement with Tyrone, to have succours from him for the usurping upon the state here (not because it was more dangerous than the rest of his treasons, but because it was more odious, and in a kind monstrous, that he should conspire with such a rebel, against whom he was sent; and therefore might adventure to alienate mens affections from him;) he drave it to this, that there might be, and so there was, under colour of treaty, an interview and private conference between Tyrone and himself only, no third person admitted. A strange course, considering with whom he dealt, and especially considering what message Knowd had brought, which should have made him rather call witnesses to him, than avoid witnesses. But he being only true to his own ends, easily dispensed with all such considerations. Nay, there was such careful order taken, that no person should overhear one word that passed between them two, as, because the place appointed and used for the parley was such, as there was the depth of a brook between them, which made them speak with some loudness, there were certain horsemen appointed by order from Essex, to keep all men off a great distance from the place.

It is true, that the secrecy of that parley, as it gave to him the more liberty of treason, so it may give any man the more liberty of surmise, what was then handled between them, inasmuch as nothing can be known, but by report from one of them two, either Essex or Tyrone.

But although there were no proceeding against Essex upon these treasons, and that it were a needless thing to load more treasons upon him then, whose burden was so great after; yet, for truth's sake, it is fit the world know what is testified touching the speeches, letters, and reports of Tyrone, immediately following this conference, and observe also what ensued likewise in the designs of Essex himself.

On Tyrone's part it fell out, that the very day after that Essex came to the court of England, Tyrone having conference with Sir William Warren at Ar-magh, by way of discourse told him, and bound it with an oath, and iterated it two or three several times; That within two or three months he should see the greatest alterations and strangest that ever he saw in his life, or could imagine; and







## DECLARATION OF THE TREASONS

DECLARATION OF

for they could not be uttered after his death. But Sir Christopher Blunt at his arraignment, being charged that the earl of Essex had set it down under his hand, that he had been a principal instigator of him to his treasons, in passion brake forth into these speeches; That then he must be forced to disclose what farther matters he had held my lord from, and desired for that purpose (because the present proceeding should not be interrupted) to speak with the lord Admiral and Mr. Secretary after his arraignment, and so fell most naturally and most voluntarily into this his confession, which, if it had been thought fit to have required of him at that time publicly, he had delivered before his conviction. And the same confession he did after (at the time of his execution) constantly and fully confirm, discourse particularly, and take upon his death, where never any man shewed less fear, nor a greater resolution.

And the same matter so by him confessed, was likewise confessed with the same circumstances of time and place by Southampton, being severally examined thereupon.

So as now the world may see how long since my lord put on his vizard, and disclosed the secrets of his heart to two of his most confident friends, falling upon that unnatural and detestable treason, whereunto all his former actions in his government in Ireland (and God knows how long before) were but introductions.

his government in a  
ductions.

But finding that these two persons, which of all the rest he thought to have of general found forwardest, Southampton, whose displacing he had made his own discontentment (having placed him, no question to that end, to find cause of discontentment) and Blunt, a man so enterprising and prodigal of his own life (as himself termed himself at the bar) did not applaud to this his purpose, and thereby self was con-ferred by doubting how coldly he should find others minded, that were not so near to him; Effect up-and therefore condescending to Blunt's advice to surprize the court, he did par- ampon, contrary sue that plot accordingly, and came over with a selected company of captains and most resolute, though not knowing of his purpose. So as even at that time every man noted and wondered what the matter should be, that my lord took his most particular friends and followers, from their companies, which were coun-tenance and means unto them, to bring them over. But his purpose (as in part before) was this; that if he held his greatness in court, and were



was indeed somewhat needful, the principal article of them being, That there should be a general restitution of rebels in Ireland to all their lands and possessions, that they could pretend any right to before their going out into rebellion, without reservation of such lands as were by act of parliament passed to the crown, and so planted with English, both in the time of queen Mary, and since; and without difference either of time of their going forth, or nature of their offence, or other circumstance: tending in effect to this, that all the queen's good subjects, in most of the provinces, should have been displanted, and the country abandoned to the rebels.

When this man was come over, his heart thus fraught with treasons, and presented himself to her majesty; it pleased God, in his singular providence over her majesty, to guide and hem in her proceeding towards him in a narrow way of safety between two perils. For neither did her majesty leave him at liberty, whereby he might have commodity to execute his purpose; nor restrain him in any such nature, as might signify or betoken matter of despair of his return to court and favour. And so the means of present mischief being taken away, and the humours not stirred, this matter fell asleep, and the thread of his purposes was cut off. For coming over about the end of September, and not denied access and conference with her majesty, and then being commanded to his chamber at court for some days, and from thence to the lord Keeper's house, it was conceived that these were no ill signs. At my lord Keeper's house he remained till some few days before Easter, and then was removed to his own house, under the custody of Sir Richard Barkley, and in that sort continued till the end of Trinity term following.

For her majesty, all this while looking into his faults with the eye of her princely favour, and loth to take advantage of his great offences, in other nature than as contempts, resolved so to proceed against him, as might (to use her majesty's own words) tend *ad correctionem, et non ad ruinam*.

Nevertheless afterwards, about the end of Trinity term following, for the better satisfaction of the world, and to repress seditious bruits and libels which were dispersed in his justification, and to observe a form of justice before he should be set at full liberty; her majesty was pleased to direct, that there should be associated unto her privy council some chosen persons of her nobility, and of her judges of the law; and before them his cause (concerning the breaking of his instructions for the Northern prosecution, and the manner of his treating with Tyrone, and his coming over, and leaving the kingdom of Ireland contrary to her majesty's commandment, expressed as well by signification thereof, made under her royal hand and signet, as by a most binding and effectual letter written privately to himself) to receive a hearing; with limitation, nevertheless, that he should not be charged with any point of disloyalty: and with like favour directed, that he should not be called in question in the open and ordinary place of offenders, in the Star Chamber, from which he had likewise, by a most pertinent and humble letter, desired to be spared, as that which would have wounded him for ever, as he affirmed, but in a more private manner at my lord Keeper's house. Neither was the effect of the sentence, that there passed against him, any more than a suspension of the exercise of some of his places: at which time also, Essex, that could vary himself into all shapes for a time, infinitely desirous (as by the sequel now appeareth) to be at liberty to practise and revive his former purposes, and hoping to set into them with better strength than ever, because he conceived the people's hearts were kindled to him by his troubles, and that they had made great demonstrations of as much; he did transform himself into such a strange and dejected humility, as if he had been no man of this world, with passionate protestations that he called God to witness, That he had made an utter divorce with the world; and he desired her majesty's favour not for any worldly respect, but for a preparative for a *Nunc dimittis*; and that the tears of his heart had quenched in him all humours of ambition. All this to make her majesty secure, and to lull the world asleep, that he was not a man to be held any ways dangerous.

Not many days after, Sir Richard Barkley his keeper was removed from him, and



## DECLARATION OF THE TREASONS

and he set at liberty with this admonition only; That he should not take himself to be altogether discharged, though he were left to the guard of none but his own discretion. But he felt himself no sooner upon the wings of his liberty, but notwithstanding his former shews of a mortified estate of mind) he began to practise afresh as busily as ever, reviving his former resolution; which was the surprising and possessing the queen's person and the court. And that it may appear how early after his liberty he set his engines on work, having long before entertained into his service, and during his government in Ireland drawn near unto him in the place of his chief secretary, one Henry Cusse, a base fellow by birth, but a great scholar, and indeed a notable traitor by the book, being otherwise of a turbulent and mutinous spirit against all superiors.

This fellow, in the beginning of August, which was not a month after Essex had liberty granted, fell of practising with Sir Henry Nevil, that served her majesty as legier ambassador with the French king, and then newly come over into England from Bullioign, abusing him with a false lie and mere invention, that his service was blamed and disliked, and that the imputation of the breach of the treaty of peace held at Bullioign was like to light upon him (when there was no colour of any such matter) only to disaste him of others, and fasten him to my lord, though he did not acquaint him with any particulars of my lord's designs till a good while after.

The declaration of Sir Henry Nevil.

But my lord having spent the end of the summer (being a private time, when every body was out of town and dispersed) in digesting his own thoughts, with the help and conference of Mr. Cusse, they had soon set down between them the ancient principle of traitors and conspirators, which was, to prepare many, and to acquaint few; and, after the manner of miners, to make ready their powder, and place it, and then give fire but in the instant. Therefore, the first consideration was of such persons as my lord thought fit to draw to be of his party; singling out both of nobility and martial men, and others, such as were discontented or turbulent, and such as were weak of judgment, and easy to be abused, or such as were wholly dependants and followers (for means or countenance) of himself, Southampton, or some other of his greatest associates.

And knowing there were no such strong and drawing cords of popularity as religion, he had not neglected, both at this time and long before, in a profane policy to serve his turn (for his own greatness) of both sorts and factions, both of catholicks and puritans, as they term them, turning his outside to the one, and his inside to the other; and making himself pleasing and gracious to the one sort by professing zeal, and frequenting sermons, and making much of preachers, and secretly underhand giving assurance to Blunt, Davis, and divers others, that (if he might prevail in his desired greatness) he would bring in a toleration of the catholick religion.

The confession of Blunt and Davis.

Then, having passed the whole Michaelmas term in making himself plausible, and in drawing concourse about him, and in affecting and alluring men by kind provocations and usage, wherein (because his liberty was qualified) he neither forgot exercise of mind nor body, neither sermon nor tennis-court, to give the occasion and freedom of access and concourse unto him, and much other practice and device; about the end of that term, towards Christmas, he grew to a more framed resolution of the time and manner, when and how he would put his purpose in execution. And first, about the end of Michaelmas term, it passed as a kind of cypher and watch-word amongst his friends and followers, That my lord would stand upon his guard: which might receive construction, in a good sense, as well guard of circumspection, as guard of force: but to the more private and trusty persons he was content it should be expounded that he would be cooped up no more, nor hazard any more restraints or commandments.

The declaration of Sir H. Nevil, and confession of Sir Ferdinando George.

But the next care was how to bring such persons, as he thought fit for his purpose, into town together, without vent of suspicion, to be ready at the time, when he should put his design in execution; which he had concluded should be some time in Hilary term; wherein he found many devices to draw them up, some for suits in law, and some for suits in court, and some for assurance of land: and one friend to draw up another, it not being perceived that all



moved from one head. And it may be truly noted, that in the catalogue of those persons that were the eighth of February in the action of open rebellion, a man may find almost out of every county of England some; which could not be by chance or constellation: and in the particularity of examinations (too long to be rehearsed) it was easy to trace in what sort many of them were brought up to town, and held in town upon several pretences. But in Candlemas term, when the time drew near, then was he content consultation should be had by certain choice persons, upon the whole matter and course which he should hold. And because he thought himself and his own house more observed, it was thought fit that the meeting and conference should be at Drury-house, where Sir Charles Davers lodged. There met at this council, the earl of Southampton, with whom in former times he had been at some emulations and differences in court; but after, Southampton having married his kinswoman, and plunged himself wholly into his fortune, and being his continual associate in Ireland, he accounted of him as most assured unto him, and had long ago in Ireland acquainted him with his purpose, as was declared before: Sir Charles Davers, one exceedingly devoted to the earl of Southampton, upon affection begun first upon the deserting of the same earl towards him, when he was in trouble about the murder of one Long: Sir Ferdinando Gorge, one that the earl of Essex had of purpose sent for up from his government at Plymouth by his letter, with particular assignation to be here before the second of February: Sir John Davis, one that had been his servant, and raised by him, and that bare office in the Tower, being surveyor of the ordnance, and one that he greatly trusted: and John Littleton, one they respected for his wit and valour.

The consultation and conference rested upon three parts: the perusal of a list <sup>The con-</sup> of those persons, whom they took to be of their party; the consideration of the <sup>señon of</sup> action itself which they should set a-foot, and how they should proceed in it; <sup>Sir Ch.</sup> Davers, and the distribution of the persons, according to the action concluded on, to their <sup>1. 2.</sup> J. Davs <sup>2.</sup> Sir

several employments. <sup>Rerdin.</sup> <sup>Gorge 2.</sup> <sup>Sir Ch. rist.</sup> <sup>Blunt 2.</sup> The list contained the number of fixscore persons, noblemen, and knights, and principal gentlemen, and was (for the more credit's sake) of the earl of Essex <sup>South-</sup> own hand-writing. <sup>ampon at</sup>

For the action itself, there was proposition made of two principal articles: the one of possessing the Tower of London; the other of surprizing her majesty's person and the court; in which also deliberation was had, what course to hold with the city, either towards the effecting of the surprize, or after it was effected.

For the Tower, was alleged the giving a reputation to the action, by getting into their hand the principal fort of the realm, with the stores and provisions thereunto appertaining, the bridling of the city by that piece, and commodity of entrance in and possessing it, by the means of Sir John Davis. But this was by opinion of all rejected, as that which would distract their attempt from the more principal, which was the court, and as that which they made a judgment would follow incidently, if the court were once possessed.

But the latter, which was the ancient plot (as was well known to Southampton) was in the end, by the general opinion of them all, insisted and rested upon.

And the manner how it should be ordered and disposed was this: That certain selected persons of their number, such as were well known in court, and might have access, without check or suspicion, into the several rooms in court, according to the several qualities of the persons, and the differences of the rooms, should distribute themselves into the presence, the guard-chamber, the hall, and the utter court and gate, and some one principal man undertaking every several room with the strength of some few to be joined with him, every man to make good his charge, according to the occasion. In which distribution, Sir Charles Davers was then named to the presence, and to the great chamber, where he was appointed, when time should be, to seize upon the halberds of the guard; Sir John Davis to the hall; and Sir Christopher Blunt to the utter gate; these seeming to them the three principal wards of consideration: and that things being within the court in a readiness, a signal should be given and sent to Essex, to set forward from Essex-house, being no great distance off. Whereupon Essex, ac-



## DECLARATION OF THE TREASONS

accompanied with the noblemen of his party, and such as should be prepared and assembled at his house for that purpose, should march towards the court: and that the former conspirators already entered should give correspondence to them without, as well by making themselves masters of the gates to give them entrance, as by attempting to get into their hand upon the sudden the halberds of the guard, thereby hoping to prevent any great resistance within, and by filling all full of tumult and confusion.

This being the platform of their enterprize, the second act of this tragedy was also resolved, which was, that my lord should present himself to her majesty, as prostrating himself at her feet, and desire the remove of such persons as he called his enemies, from about her. And after that my lord had obtained possession of the queen, and the state, he should call his pretended enemies to a trial upon their lives, and summon a parliament, and alter the government, and obtain to himself and his associates such conditions as seemed to him and them good.

There passed a speech also in this conspiracy of possessing the city of London, which Essex himself, in his own particular and secret inclination, had ever a special mind unto: not as a departure or going from his purpose of possessing the court, but as an inducement and preparative to perform it upon a surer ground: an opinion bred in him (as may be imagined) partly by the great overweaning he had of the love of the citizens; but chiefly, in all likelihood, by a fear, that altho' he should have prevailed in getting her majesty's person into his hands for a time, with his two or three hundred gentlemen, yet the very beams and graces of her majesty's magnanimity and prudent carriage in such disaster, working with the natural instinct of loyalty, which of course (when fury is over) doth ever revive in the hearts of subjects of any good blood or mind (such as his troop for the more part was compounded of, though by him seduced and bewitched) would quickly break the knot, and cause some disunion and separation amongst them, whereby he might have been left destitute, except he should build upon some more popular number, according to the nature of all usurping rebels, which do ever trust more in the common people, than in persons of sort or quality. And this may well appear by his own plot in Ireland, which was to have come with the choice of the army, from which he was diverted, as before is shewed. So as his own courtes inclined ever to rest upon the main strength of the multitude, and not upon surprizes, or the combinations of a few.

But to return: These were the resolutions taken at that consultation, held by these five at Drury-house, some five or six days before the rebellion, to be reported to Essex, who ever kept in himself the binding and directing voice: which he did to prevent all differences that might grow by dissent or contradiction. And besides he had other persons (which were Cusse and Blunt) of more inwardness and confidence with him than these (Southampton only excepted) which managed that consultation. And, for the day of the enterprize, which is that must rise out of the knowledge of all the opportunities and difficulties, it was referred to Essex his own choice and appointment: it being nevertheless resolved, that it should be some time before the end of Candlemas term.

But this council and the resolutions thereof, were in some points refined by Essex, and Cusse, and Blunt: for, first it was thought good, for the better making sure of the utter gate of the court, and the greater celerity and suddenness, to have a troop at receipt to a competent number, to have come from the Mews, where they should have been assembled without suspicion in several companies, and from thence cast themselves in a moment upon the court-gate, and join with them which are within, while Essex with the main of his company were making forward.

It was also thought fit, that because they would be commonwealth's men, and foresee, that the businels and service of the publick state should not stand still; they should have ready at court, and at hand, certain other persons to be offered, to supply the offices and places of such her majesty's counsellors and servants, as they should demand to be removed and displaced.

But chiefly it was thought good, that the assembling of their companies together



ther should be upon some plausible pretext; both to make divers of their company, that understood not the depth of the practices, the more willing to follow them; and to engage themselves, and to gather them together the better without peril of detecting or interrupting: and again, to take the court the more unprovided, without any alarm given. So as now there wanted nothing but the assignation of the day: which nevertheless was resolved indefinitely to be before the end of the term, as was said before, for the putting in execution of this most dangerous and execrable treason. But God, who had in his divine providence long ago cursed this action with the curse that the psalm speaketh of, *That it should be like the untimely fruit of a woman, brought forth before it came to perfection*, so disposed above, that her majesty, understanding by a general charm and muttering of the great and universal resort to Essex-house, contrary to her princely admonition, and somewhat differing from his former manner (as there could not be so great fire without some smoke) upon the seventh of February, the afternoon before this rebellion, sent to Essex-house Mr. Secretary Herbert, to require him to come before the lords of her majesty's council, then sitting in council at Salisbury-court, being the lord Treasurer's house: where it was only intended, that he should have received some reprehension, for exceeding the limitations of his liberty, granted to him in a qualified manner, without any intention towards him of restraint; which he, under colour of not being well, excused to do; but his own guilty conscience applying it, that his trains were discovered, doubting peril in any farther delay, determined to hasten his enterprise, and to set it on foot the next day.

But then again, having some advertisement in the evening, that the guards were doubled at court, and laying that to the message he had received over-night; and so concluding that alarm was taken at court, he thought it to be in vain to think of the enterprise of the court, by way of surprize: but that now his only way was, to come thither in strength, and to that end first to attempt the city: wherein he did but fall back to his own former opinion, which he had in no sort neglected, but had formerly made some overtures to prepare the city to take his part; relying himself (besides his general conceit, that himself was the darling and minion of the people, and specially of the city) more particularly upon assistance given of Thomas Smith, then sheriff of London, a man well beloved amongst the citizens, and one that had some particular command of some of the trained forces of the city, to join with him. Having therefore concluded upon this determination, now was the time to execute in fact all that he had before in purpose digested.

First, therefore, he concluded of a pretext which was ever part of the plot, and which he had meditated upon and studied long before. For finding himself (thanks be to God) to seek, in her majesty's government, of any just pretext in matter of state, either of innovation, oppression, or any unworthiness: as in all his former discontentments he had gone the beaten path of traitors, turning their imputation upon counsellors, and persons of credit with their sovereign; so now he was forced to descend to the pretext of a private quarrel, giving out this speech, how that evening, when he should have been called before the lords of the council, there was an ambuscade of musketeers placed upon the water, by the device of my lord Cobham and Sir Walter Raleigh, to have murdered him by the way as he passed: a matter of no probability; those persons having no such desperate estates or minds, as to ruin themselves and their posterity, by committing so odious a crime.

But contrariwise, certain it is, Sir Ferdinando Gorge accused Blunt, to have persuaded him to kill, or at least apprehend Sir Walter Raleigh; the latter whereof Blunt denieth not, and asked Sir Walter Raleigh forgiveness at the time of his death.

But this pretext, being the best he had, was taken: and then did messages and warnings fly thick up and down to every particular nobleman and gentleman, both that evening and the next morning, to draw them together in the forenoon to Essex-house, dispersing the foresaid fable, That he should have been murdered; save that it was sometime on the water, sometime in his bed, varying according

Confession  
of Blunt

Confession  
of Sir  
Ferdinand  
Gorge.



## DECLARATION OF THE REASONS

cording to the nature of a lye. He sent likewise the same night certain of his instruments, as namely, one William Temple his secretary, into the city to disperse the same tale, having increased it some few days before by an addition, That he should have been likewise murdered by some Jesuits to the number of four: and to fortify this pretext, and to make the more buzz of the danger he stood in, he caused that night a watch to be kept all night long, towards the street, in his house. The next morning, which was Sunday, they came unto him of all hands, according to his messages and warnings: of the nobility, the earls of Rutland, Southampton, and the lord Sands, and Sir Henry Parker, commonly called the lord Mountgale; besides divers knights and principal gentlemen and their followers, to the number of some three hundred. And also it gave cause to some, and colour to others to come upon that occasion. As they came, my lord saluted and embraced, and to the generality of them gave to understand, in as plausible terms as he could, That his life had been sought, and that he meant to go to the court and declare his griefs to the queen, because his enemies were mighty, and used her majesty's name and commandment; and The con- desired their help to take his part: but unto the more special persons, he spake the earl of Rutland. high and in other terms, telling them, That he was sure of the city, and would put himself into that strength, that her majesty should not be able to stand against him, and that he would take revenge of his enemies.

All the while after eight of the clock in the morning, the gates to the street and water were strongly guarded, and men taken in and let forth by discretion of those that held the charge, but with special caution of receiving in such as came from court, but not suffering them to go back without my lord's special direction, to the end no particularity of that which passed there might be known to her majesty.

About ten of the clock, her majesty having understanding of this strange and tumultuous assembly at Effex-houle, yet in her princely wisdom and moderation thought to cast water upon this fire before it brake forth to farther inconvenience: and therefore using authority before she would use force, sent unto him four persons of great honour and place, and such as he ever pretended to reverence and love, to offer him justice for any griefs of his, but yet to lay her royal commandment upon him to disperse his company, and upon them to withdraw themselves.

The declaration of the lord Keeper, the earl of Worcester, the lord Chief Justice of England, came to the house, and found the gates shut upon the earl of them. But after a little stay, they were let in at the wicket; and as soon as they were within, the wicket was shut, and all their servants kept out, except the lord Chief bearer of the seal. In the court they found the earls with the rest of the company, the court in a manner full, and upon their coming towards Essex, they all flocked and thronged about them; whereupon the lord Keeper in an audible voice delivered to the earl the queen's message, That they were sent by her majesty to understand the cause of this their assembly, and to let them know that Chief Justice if they had any particular cause of griefs against any persons whatsoever, they should have hearing and justice.

The declaration of the earl of Worcester.  
Whereupon the earl of Essex in a very loud and furious voice declared, That his life was sought, and that he should have been murdered in his bed, and that he had been perfidiously dealt withal; and other speeches to the like effect. To which the lord Chief Justice said, if any such matter were attempted or intended against him, it was fit for him to declare it, assuring him both a faithful relation on their part, and that they could not fail of a princely indifferency and justice on her majesty's part.

To which the earl of Southampton took occasion to object the assault made upon him, by the lord Gray: which my lord Chief Justice returned upon him, and said, That in that case justice had been done, and the party was in prison for it.

Then the lord Keeper required the earl of Effex, that if he would not declare his



his griefs openly, yet that then he would impart them privately; and then they doubted not to give him or procure him satisfaction.

Upon this there arose a great clamour among the multitude: "Away, my lord, they abuse you, they betray you, they undo you, you lose time." Whereupon my lord Keeper put on his hat, and said with a louder voice than before, "My lord, let us speak with you privately, and understand your griefs; and I do command you all upon your allegiance, to lay down your weapons and to depart." Upon which words the earl of Essex and all the rest, as disdaining commandment, put on their hats; and Essex somewhat abruptly went from him into the house, and the counsellors followed him, thinking he would have private conference with them as was required.

And as they passed through the several rooms, they might hear many of the disordered company cry, "Kill them, kill them;" and others crying, "Nay, but stop them up, keep them as pledges, cast the great seal out at the window;" and other such audacious and traitorous speeches. But Essex took hold of the occasion and advantage, to keep in deed such pledges if he were distressed, and to have the countenance to lead them with him to the court, especially the two great magistrates of justice, and the great seal of England, if he prevailed, and to deprive her majesty of the use of their counsel in such a strait, and to engage his followers in the very beginning by such a capital act, as the imprisonment of counsellors carrying her majesty's royal commandment for the suppressing of a rebellious force.

And after that they were come up into his book-chamber, he gave order they should be kept fast, giving the charge of their custody principally to Sir John Davis, but adjoined unto him a warder, one Owen Salisbury, one of the most seditious and wicked persons of the number, having been a notorious robber, and one that served the enemy under Sir William Stanley, and that bare a special spleen unto my lord Chief Justice; who guarded these honourable persons with muskets charged and matches ready fired at the chamber door.

This done, the earl (notwithstanding my lord Keeper still required to speak with him) left the charge of his house with Sir Gilly Merick; and, using these words to my lord Keeper, "Have patience for a while, I will go take order with the mayor and sheriffs for the city, and be with you again within half an hour;" issued with his troop into London, to the number of two hundred, besides those that remained in the house, choice men for hardiness and valour, unto whom some gentlemen and one nobleman did after join themselves.

But from the time he went forth, it seems God did strike him with the spirit of amazement, and brought him round again to the place whence he first moved.

For after he had once by Ludgate entered into the city, he never had so much as the heart or assurance to speak any set or confident speech to the people (but repeated only over and over his tale as he passed by, that he should have been murdered) nor to do any act of foresight or courage; but he that had vowed he would never be cooped up more, cooped himself first within the walls of the city, and after within the walls of an house, as arrested by God's justice as an example of disloyalty. For passing through Cheapside, and so towards Smith's The house, and finding though some came about him, yet none joined or armed with him, he provoked them by speeches as he passed to arm, telling them, *The earl of* They did him hurt and no good, to come about him with no weapons. *Rutland.*

But there was not in so populous a city, where he thought himself held so dear, one man, from the chiefest citizen to the meanest artificer or prentice, that armed with him: so as being extremely appalled, as divers that happened to see him then might visibly perceive in his face and countenance, and almost moulten with sweat, though without any cause of bodily labour but only by the perplexity and horror of his mind, he came to Smith's house the sheriff, where he refreshed himself a little and shifted him.

But the mean while it pleased God, that her majesty's directions at court, though in a case so strange and sudden, were judicial and sound. For first there was commandment in the morning given unto the city, that every man should be



## DECLARATION OF THE TREASONS

in a readines both in person and armour, but yet to keep within his own door, and to expect commandment; upon a reasonable and politick consideration, that had they armed suddenly in the streets, if there were any ill disposed persons, they might arm on the one side and turn on the other, or at least, if armed men had been seen to and fro, it would have bred a greater tumult and more bloodshed; and the nakedness of Essex's troop would not have so well appeared.

And soon after, direction was given that the lord Burghley, taking with him the king of heralde, should declare him traitor in the principal parts of the city; which was performed with good expedition and resolution, and the los and hurt of some of his company. Besides that, the earl of Cumberland, and Sir Thomas Gerard knight-marshal, rode into the city, and declared and notified to the people that he was a traitor: from which time divers of his troop withdrawing from him, and none other coming in to him, there was nothing but despair. For the earl of having stayed a while, as is said, at sheriff Smith's house, and there changing his pretext of a private quarrel, and publishing, that the realm should have been sold to the Infanta, the better to spur on the people to rise, and called, and given commandment to have arms brought and weapons of all sorts, and being soon after advertised of the proclamation, he came forth in a hurry.

So having made some stay in Gracechurch-street, and being dismayed upon knowledge given to him that forces were coming forwards against him under the conduct of the lord Admiral, the lieutenant of her majesty's forces; and not knowing what course to take, he determined in the end to go back towards his own house, as well in hope to have found the counsellors there, and by them to have served some turn, as upon trust that towards night his friends in the city would gather their spirits together, and rescue him, as himself declared after to the lieutenant of the Tower.

But for the counsellors, it had pleased God to make one of the principal offenders his instrument for their delivery; who seeing my lord's case desperate, and contriving how to redeem his fault and save himself, came to Sir John Davis, and Sir Gilly Merick, as sent from my lord; and so procured them to be released.

But the earl of Essex, with his company that was left, thinking to recover his house, made on by land towards Ludgate; where being resisted by a company of pikemen and other forces, gathered together by the wife and diligent care of the bishop of London, and commanded by Sir John Luison, and yet attempting to clear the passage, he was with no great difficulty repulsed. At which encounter Sir Christopher Blunt was sore wounded, and young Tracy slain on his part; and one Waits on the queen's part, and some others. Upon which repulse he went back and fled towards the water-side, and took boat at Queenhithe, and so was received into Essex's house at the water-gate, which he fortified and barricado'd; but instantly the lord Lieutenant so disposed his companies, as all passage and issue forth was cut off from him both by land and by water, and all succours that he might hope for were discouraged: and leaving the earl of Cumberland, the earl of Lincoln, the lord Thomas Howard, the lord Gray, the lord Burghley, and the lord Compton, Sir Walter Raleigh, Sir Thomas Gerard, with divers others, before the house to landward, my lord Lieutenant himself thought good, taking with him the lord of Effingham, lord Cobham, Sir John Stanhope, Sir Robert Sidney, M. Foulk Grevill, with divers others, to assail the garden and banquetting house on the water-side, and presently forced the garden, and won to the walls of the house, and was ready to have assailed the house; but out of a christian and honourable consideration, understanding that there were in the house the countess of Essex, and the lady Rich, with their gentlewomen, let the earl of Essex know by Sir Robert Sidney, that he was content to suffer the ladies and gentlewomen to come forth. Whereupon Essex returning the lord Lieutenant thanks for the compassion and care he had of the ladies, desired only to have an hour's respite to make way for their going out, and an hour after to barricado the place again: which because it could make no alteration to the hindrance of the service, the lord Lieutenant thought good to grant. But Essex, having had some talk within of a sally, and despairing of the succels, and



and thinking better to yield himself, sent word, that upon some conditions he would yield.

But the lord Lieutenant utterly refusing to hear of capitulation, Essex desired to speak with my lord, who thereupon went up close to the house; and the late earls of Essex and Southampton, with divers other lords and gentlemen their partakers, presented themselves upon the leads; and Essex said, he would not capitulate, but intreat; and made three petitions. The first, that they might be civilly used: whereof the lord Lieutenant assured them. The second, that they might have an honourable trial: whereof, the lord Lieutenant answered, they needed not to doubt. The third, that he might have Ashton a preacher with him in prison for the comfort of his soul: which the lord Lieutenant said he would move to her majesty, not doubting of the matter of his request, though he could not absolutely promise him that person. Whereupon they all, with the ceremony amongst martial men accustomed, came down and submitted themselves, and yielded up their swords, which was about ten of the clock at night; there having been slain in holding of the house by musket-shot Owen Salisbury, and some few more on the part of my lord, and some few likewise slain and hurt on the queen's part; and presently, as well the lords as the rest of their confederates of quality, were severally taken into the charge of divers particular lords and gentlemen, and by them conveyed to the Tower and other prisons.

So as this action, so dangerous in respect of the person of the leader, the manner of the combination, and the intent of the plot, brake forth and ended within the compass of twelve hours, and with the loss of little blood, and in such sort as the next day all courts of justice were open, and did sit in their accustomed manner, giving good subjects, and all reasonable men just cause to think, not the less of the offender's treason, but the more of her majesty's princely magnanimity and prudent foresight in so great a peril, and chiefly of God's goodness, that hath blessed her majesty in this, as in many things else, with so rare and divine felicity.

The effect of the evidence given at the several arraignments of the late earls of Essex and Southampton, before the lord Steward; and of Sir CHRISTOPHER BLUNT, and Sir CHARLES DAVERS, and others, before great and honourable Commissioners of Oyer and Terminer: and of the answers and defences which the said offenders made for themselves; and the replies made upon such their defences: with some other circumstances of the proceedings, as well at the same arraignments as after.

THE two late earls of Essex and Southampton were brought to their trial Some the nineteenth of February, eleven days after the rebellion. At which trial there passed upon them twenty five peers, a greater number than hath been by the earls called in any former precedent. Amongst whom her majesty did not forbear to use many that were of near alliance and blood to the earl of Essex, and some others, that had their sons and heirs apparent that were of his company, and followed him in the open action of rebellion. The lord Steward then in commission (according to the solemnity in such trials received) was the lord Buckhurst, lord High Treasurer, who with gravity and temperance directed the evidence, and moderated, and gave the judgment. There was also an assistance of eight judges, the three by the chief, and five others. The hearing was with great patience and liberty: the judges, that the ordinary course not being held, to silence the prisoners till the whole state of the law had evidence was given in; but they being suffered to answer articulately to every branch of the evidence, and sometimes to every particular deposition, whensoever they offered to speak: and not so only, but they were often spared to be interrupted, even in their digressions and speeches not much pertinent to their cause. And always when any doubt in law was moved, or when it was required either by the prisoners or the peers, the lord Steward required the judges to deliver challenge:



## DECLARATION OF THE TREASONS

liver the law; who gave their opinions severally, not barely yea or no, but at large with their reasons.

In the indictment were not laid or charged the treasons of Ireland, because the greatest matter, which was the design to bring over the army of Ireland, being then not confessed nor known; it was not thought convenient to stuff the indictment with matters which might have been conceived to be chiefly gathered by curious inquisition, and grounded upon report or presumption, when there was other matter so notorious. And besides, it was not unlikely, that in his case, to whom many were so partial, some (who would not consider how things came to light by degrees) might have reported, that he was twice called in question about one offence. And therefore the late treasons of his rebellion and conspiracy were only comprehended in the indictment, with the usual clauses and consequents in law, of compassing the queen's death, destruction, and deprivation, and levying war, and the like.

*The evidence consisted of two parts: the plot of surprizing her majesty's person in court, and the open rebellion in the city.*

THE plot was opened according to the former narration, and proved by the several confessions of four witnesses, fully and directly concurring in the point; Sir Christopher Blunt, Sir Charles Davers, Sir John Davis, and Sir Ferdinando Gorge. Of which number, though Sir Christopher Blunt were not at the council held at Drury-house, no more than Essex himself was; yet he was privy to that which passed. Sir Ferdinando Gorge being prisoner in the Gatehouse, near the place of trial, was (at the request of the earl of Essex) brought thither, and avouched *viva voce* his confession in all things.

And these four proved all particularities of surprizing the court, and the manner of putting the same in execution, and the distributing and naming of the principal persons and actors to their several charges; and the calling of my lord's pretended enemies to trial for their lives, and the summoning of a parliament, and the altering of the government. And Sir Christopher Blunt, and Sir John Davis from Sir Christopher Blunt, did speak to the point of bringing in a toleration of the catholick religion.

*For the overt rebellion in the city itself, it was likewise opened, according to the former narration, and divided itself naturally into three parts.*

FIRST, the imprisonment of the counsellors, bringing her majesty's royal commandment to them, upon their allegiance to disperse their forces. Secondly, the entering the city, and the stirring of the people to rise, as well by provoking them to arm, as by giving forth the slanders that the realm was sold to the Spaniard, and the assailing of the queen's forces at Ludgate. And thirdly, the resistance and keeping of the house against her majesty's forces, under the charge and conduct of the lord Lieutenant.

And albeit these parts were matters notorious, and within almost every man's view and knowledge; yet, for the better satisfaction of the peers, they were fully proved by the oath of the lord Chief Justice of England, being there present *viva voce*, and the declaration of the earl of Worcester, being one of the peers likewise, *viva voce*, touching so much as passed about the imprisonment of themselves and the rest; and by the confessions of the earl of Rutland, the lord Sandys, the lord Cromwell, and others.

The defence of the late earl of Essex, touching the plot and consultation at Drury-house, was: That it was not proved that he was at it; and that they could shew nothing, proving his consent or privy, under his hand.

Touching the action in the city, he justified the pretext of the danger of his life to be a truth. He said that his speech, that the realm should have been sold to the Infanta of Spain, was grounded upon a report he had heard, that Sir Robert Cecil should say privately, That the Infanta's title to the crown (after her majesty) was as good as any other. He excused the imprisonment of the counsellors to have been against his mind, forced upon him by his unruly company.



pany. He protested he never intended in his heart any hurt to her majesty's person; that he did desire to secure his access to her, for which purpose he thought to pray the help of the city, and that he did not arm his men in warlike sort, nor struck up drum, nor the like.

The defence of the late earl of Southampton to his part in the plot, and consultation at Drury-house, was: That it was a matter debated, but not resolved nor concluded; and that the action which was executed, was not the action which was consulted upon. And for the open action in the city, he concurred with Essex, with protestation of the cleanness of his mind for any hurt to the queen's person: and that it was but his affection to my lord of Essex that had drawn him into the cause. This was the substance and best of both their defences. Unto which the reply was:

*Defence. To the point, that the late earl of Essex was not at the consultation at Drury-house:*

*Reply.* It was replied, that it was proved by all the witnesses, that that consultation was held by his special appointment and direction, and that both the list of the names, and the principal articles, were of his own hand-writing. And whereas he said, they could not be shewed extant under his hand; it was proved by the confession of my lord of Rutland, and the lord Sands, that he had provided for that himself. For after he returned out of the city to his own house, he burned divers papers which he had in a cabinet, because (as himself said) they should tell no tales.

*Defence. To the point which Southampton alleged, That the consultation at Drury-house, upon the list and articles in writing, was not executed:*

*Reply.* It was replied, that both that consultation in that manner held, if none other act had followed, was treason: and that the rebellion following in the city, was not a desisting from the other plot, but an inducement and pursuance of it; their meaning being plain on all parts, that after they had gotten the aid of the city, they would have gone and possessed the court.

*Defence. To the point, that it was a truth that Essex should have been assailed by his private enemies:*

*Reply.* First, he was required to deliver who it was that gave him the advertisement of it; because otherwise it must light upon himself, and be thought his own invention: whereunto he said, that he would name no man that day.

Then it was shewed how improbable it was, considering that my lord Cobham and Sir Walter Raleigh were men, whose estates were better settled and established, than to overthrow their fortunes by such a crime.

Besides, it was shewed how the tale did not hang together, but varied in itself, as the tale of the two judges did, when one said, under the mulberry-tree, and another said, under the fig-tree. So sometimes it was, that he should have been murdered in his bed, and sometimes upon the water, and sometimes it should have been performed by Jesuits some days before.

Thirdly, it was asked what reference the going into the city for succour against any his private enemies had to the imprisoning of the lord Keeper, and the lord Chief Justice, persons that he pretended to love and respect; and the earl of Worcester his kinsman, and Master Comptroller his uncle, and the publishing to the people, that the realm should have been sold to the Spaniard.

And lastly, it was said, that these were the ancient footsteps of former traitors, to make their quarrel as against their private enemies, because God unto lawful kings did ever impart such beams of his own glory, as traitors could not look straight upon them, but ever turned their pretences against some about them; and that this action of his resembled the action of Pisistratus of Athens, that proceeded so far in this kind of fiction and dissimulation, as he lanced his own body, and came hurt and wounded before the people, as having been assailed by his private enemies; and by colour thereof obtained a guard about his person, by help of whom he after usurped upon the state.

*Defence. To the point, that he heard it reported Mr. Secretary should say, That the infant's title to the crown (after her majesty) was as good as any other:*

Vol. I.

7 K

*Reply.*



## DECLARATION OF THE TREASONS

*Reply.* Upon this his allegation, Mr. Secretary standing out of sight in a private place, only to hear (being much moved with so false and foul an accusation) came suddenly forth, and made humble request to the lord Steward, that he might have the favour to answer for himself. Which being granted him, in respect of the place he carrieth (after a bitter contestation on his part with the earl, and a serious protestation of his alienation of heart from the Spanish nation in any such condition) he still urged the earl to name the reporter, that all the circumstances might be known. But the earl still warily avoiding it, Mr. Secretary replied, That seeing he would alledge no author, it ought to be reputed his own fiction. Whereupon the earl of Essex said, Though his own conscience was a sufficient testimony to himself that he had not invented any untruth, yet he would affirm thus much for the world's farther satisfaction in that behalf, that the earl of Southampton also had heard so much reported of Mr. Secretary; but said still that he (for his part) would name nobody. Whereupon Mr. Secretary adjured the earl of Southampton, by all former friendship (which had been indeed very great between them) that he would declare the person; which he did presently, and said it was Mr. Comptroller. At which speech Mr. Secretary straight took hold and said, That he was glad to hear him named of all others; for howsoever some malicious person might peradventure have been content to give credit to so injurious a conceit of him (especially such as were against the peace wherein he was employed, and for which the earl of Essex had ever hated him, being ever desirous to keep an army on his own dependency) yet he did think no man of any understanding would believe that he could be so senseless, as to pick out the earl of Essex his uncle to lay open to him his affection to that nation, in a matter of so odious and pernicious consequence; and so did very humbly crave it at the hands of the lord Steward, and all the peers, that Mr. Comptroller might be sent for, to make good his accusation.

Thereupon the lord Steward sent a sergeant at arms for Mr. Comptroller, who presently came thither, and did freely and sincerely deliver, that he had only said (though he knew not well to whom) that Mr. Secretary and he walking in the garden at court one morning about two years since, and talking casually of foreign things, Mr. Secretary told him, That one Doleman had maintained in a book (not long since printed) that the infants of Spain had a good title to the crown of England: which was all, as Mr. Comptroller said, that ever he heard Mr. Secretary speak of that matter. And so the weak foundation of that scandal being quickly discerned, that matter ended; all that could be proved, being no other, than that Mr. Comptroller had told another, who had told the earl of Essex, that Mr. Secretary said to him, that such a book said so; which every man could say that hath read it, and no man better knew than the earl himself, to whom it was dedicated.

*Defence. To the point of both their protestations, that they intended no hurt to her majesty's person:*

*Reply.* First, the judges delivered their opinions for matter in law upon two points: the one, that in case where a subject attempteth to put himself into such strength as the king shall not be able to resist him, and to force and compel the king to govern otherwise than according to his own royal authority and direction, it is manifest rebellion. The other, that in every rebellion the law intendeth as a consequent, the compassing the death and deprivation of the king, as foreseeing that the rebel will never suffer that king to live or reign, which might punish or take revenge of his treason and rebellion. And it was inferred by the queen's counsel, that this is not only the wisdom of the laws of the realm which so defineth of it, but it is also the censure of foreign laws, the conclusion of common reason, which is the ground of all laws, and the demonstrative assertion of experience, which is the warranty of all reason. For first the civil law maketh this judgment, that treason is nothing else but *crimen laesae majestatis*, or *diminutae majestatis*, making every offence which abridgeth or hurteth the power and authority of the prince, as an insult or invading of the crown, and extorting the imperial sceptre. And for common reason, it is not possible that a subject should once come to that height



as to give law to his sovereign, but what with insolency of the change, and what with terror of his own guiltiness, he will never permit the king, if he can choose, to recover authority; nor, for doubt of that, to continue alive. And lastly, for experience, it is confirmed by all stories and examples, that the subject never obtained a superiority and command over the king, but there followed soon after, the deposing and putting of the king to death, as appeareth in our own chronicles in two notable particulars of two unfortunate kings: the one of Edward the second, who when he kept himself close, for danger, was summoned by proclamation to come and take upon him the government of the realm: but as soon as he presented himself was made prisoner, and soon after forced to resign, and in the end tragically murdered in Berkley castle. And the other of king Richard the second, who though the duke of Hertford, after king Henry the fourth, presented himself before him with three humble reverences, yet in the end was deposed and put to death.

Defence. *To the point of not arming his men otherwise than with pistols, rapiers and daggers, it was replied:*

*Reply.* That that course was held upon cunning, the better to insinuate himself into the favour of the city, as coming like a friend with an All hail, or kiss, and not as an enemy, making full reckoning that the city would arm him, and arm with him, and that he took the pattern of his action from the day of the barricadoes at Paris, where the duke of Guise entering the city but with eight gentlemen, prevailing with the city of Paris to take his part, as my lord of Essex (thanks be to God) failed of the city of London, made the king (whom he thought likewise to have surprized) to forsake the town, and withdraw himself into other places, for his farther safety. And it was also urged against him out of the confession of the earl of Rutland and others, that he cried out to the citizens, That they did him hurt and no good, to come without weapons; and provoked them to arm: and finding they would not be moved to arm with him, sought to arm his own troops.

This, point by point, was the effect of the reply. Upon all which evidence, both the earls were found guilty of treason by all the several voices of every one of the peers, and so received judgment.

*The names of the peers that passed upon the trial of the two earls.*

|                     |                       |                          |
|---------------------|-----------------------|--------------------------|
| Earl of Oxford.     | Lord Viscount Bindon. | Lord Windsor.            |
| Earl of Shrewsbury. |                       | Lord Rich.               |
| Earl of Derby.      |                       | Lord Darcy de Chichey,   |
| Earl of Cumberland. | Lord De la Ware.      | Lord Chandos.            |
| Earl of Worcester.  | Lord Morley.          | Lord Hunston.            |
| Earl of Suffex.     | Lord Cobham.          | Lord St. John de Bletso. |
| Earl of Hertford.   | Lord Stafford.        | Lord Compton.            |
| Earl of Lincoln.    | Lord Gray.            | Lord Burghley.           |
| Earl of Nottingham. | Lord Lumley.          | Lord Howard of Walden.   |

*The names of the judges that assisted the court.*

|                                         |                   |
|-----------------------------------------|-------------------|
| Lord Chief Justice.                     | Justice Fenner.   |
| Lord Chief Justice of the Common-Pleas. | Justice Walmsly.  |
| Lord Chief Baron.                       | Baron Clerke.     |
| Justice Gawdy.                          | Justice Kingmill. |

Some particularities of that which passed after the arraignment of the late earls, and at the time of the suffering of the earl of Essex.

**B**UT the earl of Essex, finding that the consultation at Drury-house, and the secret plots of his premeditated and prepered treasons were come to light, contrary to his expectation, was touched, even at his parting from the bar, with a kind



## ARRAIGNMENTS OF BLUNT, DAVERS, etc.

kind of remorse; especially because he had carried the manner of his answer, rather in a spirit of ostentation and glory, than with humility and penitence; and brake out in the hall, while the lords were in conference, into these words; "That seeing things were thus carried, he would ere it be long say more than "yet was known."

Which good motion of his mind being, after his coming back to the Tower, first cherished by M. D. of Norwich, but after wrought on by the religious and effectual persuasions and exhortations of Mr. Abdy Ashton his chaplain, the man whom he made suit by name to have with him for his soul's health, as one that of late time he had been most used unto, and found most comfort of, comparing it, when he made the request, to the case of a patient, that in his extremity would be desirous to have that physician that was best acquainted with his body; he sent word the next day, to desire to speak with some of the principal counsellors, with whom he desired also that particularly Mr. Secretary might come for one. Upon which his request, first the lord Admiral and Mr. Secretary, and afterwards at two several times the lord Keeper of the great seal, the lord High Treasurer, the lord High Admiral, and Mr. Secretary repaired unto him: before whom, after he had asked the lord Keeper forgiveness, for restraining him in his house, and Mr. Secretary for having wronged him at the bar, concerning the matter of the Infanta, with signification of his earnest desire to be reconciled to them, which was accepted with all Christian charity and humanity; he proceeded to accuse heavily most of his confederates for carrying malicious minds to the state, and vehemently charged Cusse his man to his own face, to have been a principal instigator of him in his treasons; and then disclosed how far Sir Henry Nevill, her majesty's late ambassador, was privy to all the conspiracy; of whose name till then there had not been so much as any suspicion. And farther, at the lords first coming to him (not sticking to confess that he knew her majesty could not be safe while he lived) did very earnestly desire this favour of the queen, that he might die as privately as might be.

The testimony of the three divines under their hands.

And the morning before his execution, there being sent unto him, for his better preparation, Mr. Doctor Mountford, and Mr. Doctor Barlow, to join with Mr. Abdy Ashton his chaplain, he did in many words thank God that he had given him a deeper insight into his offence, being sorry he had so stood upon his justification at his arraignment: since which time, he said, he was become a new man, and heartily thanked God also that his course was by God's providence prevented. For, if his project had taken effect, "God knoweth," said he, "what harm it had wrought in the realm."

He did also humbly thank her majesty, that he should die in so private a manner (for he suffered in the Tower-yard, and not upon the hill, by his own special suit) lest the acclamation of the people (for those were his own words) might be a temptation to him: adding, that all popularity and trust in man was vain, that experience whereof himself had felt: and acknowledged farther unto them, that he was justly and worthily spewed out (for that was also his own word) of the realm, and that the nature of his offence was like a leprosy that had infected far and near. And so likewise at the publick place of his suffering, he did use vehement detestation of his offence, desiring God to forgive him his great, his bloody, his crying, and his infectious sin: and so died very penitently, but yet with great conflict (as it should seem) for his sins. For he never mentioned, nor remembered there, wife, children, or friend, nor took particular leave of any that were present, but wholly abstracted and sequestered himself to the state of his conscience, and prayer.

The effect of that which passed at the arraignments of Sir CHRISTOPHER BLUNT, Sir CHARLES DAVERS, Sir JOHN DAVIS, Sir GILLY MERICK, and HENRY CUSSE.

THE fifth of March, by a very honourable commission of oyer and determiner, directed to the lord High Admiral, the lord Chamberlain, Mr. Secretary, the lord Chief Justice of England, Mr. Chancellor of the exchequer,



Mr. Secretary Herbert, with divers of the judges, the commissioners sitting in the court of the Queen's Bench, there were arraigned and tried by a jury both of aldermen of London, and other gentlemen of good credit and sort, Sir Christopher Blunt, Sir Charles Davers, Sir John Davis, Sir Cilly Merick, and Henry Cusse. The three first whereof, before they pleaded, asked this question of the judges: Whether they might not confess the indictment in part, and plead not guilty to it in the other part. But being resolved by the judges, that their pleading must be general; they pleaded Not guilty, as did likewise the other two, without any such question asked. The reason of that question was, as they confessed, in respect of the clause laid in the indictment; That they intended and compassed the death and destruction of the queen's majesty: unto whose person (although they confessed at the bar, as they had done in their examinations, that their meaning was to come to her in such strength, as they should not be resisted, and to require of her divers conditions and alterations of government, such as in their confessions are expressed) nevertheless they protested, they intended no personal harm to herself. Whereupon (as at the arraignment of the two earls) so then again the judges delivered the rule of the law; that the wisdom and foresight of the laws of this land maketh this judgment, That the subject that rebelleth or riseth in forcible manner to over-rule the royal will and power of the king, intendeth to deprive the king both of crown and life: and that the law judgeth not of the fact by the intent, but of the intent by the fact. And the queen's counsel did again inforce that point, setting forth that it was no mystery or quiddity of the common law, but it was a conclusion infallible of reason and experience; for that the crown was not a ceremony or garland, but consisted of pre-eminence and power.

And therefore, when the subject will take upon him to give law to the king, and to make the power sovereign and commanding, to become subject and commanded; such subject layeth hold of the crown, and taketh the sword out of the king's hands. And that the crown was fastened so close upon the king's head, that it cannot be pulled off, but that head and life and all will follow; as all examples, both in foreign stories and here at home, do make manifest. And therefore, when their words did protest one thing, and their deeds did testify another, they were but like the president of the protestation used by Manlius the lieutenant of Catiline, that conspired against the state of Rome, who began his letter to the senate with these words: *Deos hominesque testor, patres conscripti, nos nihil aliud, etc.*

And if it was said farther, that admitting their protestations were so far true, that they had not at that time in their minds a formed and distinct cogitation to have destroyed the queen's person; yet nothing was more variable and mutable than the mind of man, and specially *Honores mutant mores*: when they were once aloft, and had the queen in their hands, and were peers in my lord of Essex his parliament, who could promise of what mind they would then be? especially when my lord of Essex at his arraignment had made defence of his first action of imprisoning the privy counsellors, by pretence that he was inforced to it by his unruly company. So that if themselves should not have had, or would not seem to have had, that extreme and devilish wickedness of mind, as to lay violent hands upon the queen's sacred person; yet, what must be done to satisfy the multitude and secure their party? must be then the question: wherein the example was remembered of Richard the third, who (though he were king in possession, and the rightful inheritors but infants) could never sleep quiet in his bed, till they were made away. Much less would a Catilinary knot and combination of rebels (that did rise without so much as the fume of a title) ever endure, that a queen that had been their sovereign, and had reigned so many years in such renown and policy, should be longer alive than made for their own turn. And much speech was used to the same end. So that in the end all those three at the bar said, that now they were informed, and that they descended into a deeper consideration of the matter, they were sorry they had not confessed the indictment. And Sir Christopher Blunt, at the time of his suffering, discharged this conscience in plain terms, and said publicly before all the people, that he saw



his death, saw plainly with himself, that if they could not have obtained all that they had would, they must have drawn blood even from the queen herself.

The evidence given in against them three, was principally their own confessions, charging every one himself, and the other, and the rest of the evidence used at the arraignment of the late earls, and mentioned before: save that, because it was perceived, that that part of the charge would take no labour nor time, being plain matter and confessed, and because some touch had been given, in the proclamation, of the treasons of Ireland, and chiefly because Sir Christopher Blunt was marshal of the army in Ireland, and most inward with my lord in all his proceedings there; and not so only, but farther in the confession of Thomas Lee it was precisely contained, that he knew the earl of Essex and Tyrone, and Blunt the marshal, to be all one, and to run one course; it was thought fit to open some part of the treasons of Ireland, such as were then known. Which very happily gave the occasion for Blunt to make that discovery of the purpose to have invaded the realm with the army of Ireland: which he then offered, and afterwards uttered, and in the end sealed with his blood, as is hereafter set down.

Against Cusse was given in evidence, both Sir Charles Davers's confession, who charged him, when there was any debating of the several enterprises which they should undertake, that he did ever bind firmly and resolutely for the court: and the accusation under the earl's hand, avouched by him to his face, that he was a principal instigator of him in his treasons: but especially a full declaration of Sir Henry Nevill's, which describeth and planteth forth the whole manner of his practising with him.

The fellow, after he had made some introduction by an artificial and continued speech, and some time spent in sophistical arguments, descended to these two answers: the one, For his being within Essex-house that day, the day of the rebellion, they might as well charge a lion within a grate with treason, as him: and for the consultation at Drury-house, it was no more treason than the child in the mother's belly is a child. But it was replied, that for his being in the house, it was not compulsory, and that there was a distribution in the action, of some to make good the house, and some to enter the city, and the one part held correspondent to the other, and that in treasons there were no accessaries, but all principals.

And for the consultation at Drury-house, it was a perfect treason in itself, because the compassing of the king's destruction, which by judgment of law was concluded and implied in that consultation, was treason, in the very thought and cogitation, so as that thought be proved by an overt act: and that the same consultation and debating thereupon, was an overt act, though it had not been upon a list of names, and articles in writing, much more being upon matter in writing.

And again: the going into the city was a pursuance and inducement of the enterprise to possess the court, and not a desisting or departure from it.

And lastly, it was ruled by the judges for law, That if many do conspire to execute treason against the prince in one manner, and some of them do execute it in another manner, yet their act (though differing in the manner) is the act of all them that conspire, by reason of the general malice of the intent.

Against Sir Gilly Merick, the evidence that was given, charged him chiefly with the matter of the open rebellion, that he was as captain or commander over the house, and took upon him charge to keep it, and make it good as a place of retreat for those which issued into the city, and fortifying and barricading the same house, and making provision of muskets, powder, pellets, and other munition and weapons for the holding and defending of it, and as a busy, forward and noted actor in that defence and resistance, which was made against the queen's forces brought against it by her majesty's lieutenant.

And farther to prove him privy to the plot, it was given in evidence, that some few days before the rebellion, with great heat and violence, he had displaced certain gentlemen lodged in an house fast by Essex-house, and there planted divers of my lord's followers and complices, all such as went forth with him in the action of rebellion.

That the afternoon before the rebellion, Merick, with a great company of others that



that afterwards were all in the action, had procured to be played before them, the play of deposing king Richard the second.

Neither was it casual, but a play bespoken by Merick.

And not so only, but when it was told him by one of the players, that the play was old, and they should have loss in playing it, because few would come to it: there was forty shillings extraordinary given to play it, and so thereupon played it was.

So earnest he was to satisfy his eyes with the sight of that tragedy, which he thought soon after his lord should bring from the stage to the state, but that God turned it upon their own heads.

*The speeches of Sir Christopher Blunt at his execution, are set down as near as they could be remembered, after the rest of the confessions and evidences.*

*Here follow the voluntary confessions themselves, such as were given in evidence at both the several arraignments, taken forth word for word out of the originals: whereby it may appear how God brought matters to light, at several times, and in several parts, all concurring in substance: and with them, other declarations and parts of evidence.*

The confession of THOMAS LEE, taken the 14th of February, 1600, before Sir JOHN PEYTON lieutenant of the Tower, ROGER WILBRANHAM master of the requests, Sir ANTHONY SAINTLEGER master of the rolls in Ireland, and THOMAS FLEMING her majesty's Solicitor general.

**T**HIS examine saith, that Tyrone sent a message to this examine by James Knowd (whom this examine by the marshal's warrant in writing had sent to Tyrone before himself went to Tyrone) that if the earl of Essex would follow his plot, he would make him the greatest man that ever was in England, and that, when Essex and Tyrone should have conference together, for his assurance unto the earl of Essex, Tyrone would deliver his eldest son in pledge to the earl. And with this message this examine made the earl of Essex acquainted before his coming to this examine's house, at that time when this examine was sent to Tyrone.

This examine saith, he knew that Essex, Tyrone, and the marshal Sir Christopher Blunt, were all one, and held all one course.

THOMAS LEE.

Exam. per JOHN PEYTON,  
ROGER WILBRANHAM,

ANTHONY SAINTLEGER,  
THOMAS FLEMING.

The declaration of Sir WILLIAM WARREN, 3 Octobris, 1599.

**T**HE said Sir William came to Armagh the last Friday, being the twenty-<sup>The earl</sup> eighth of September: from thence he sent a messenger in the night to <sup>of Essex</sup> Tyrone to Dungannon, signifying his coming to Armagh, as aforesaid, and that <sup>came the</sup> the next morning he would meet Tyrone at the fort of Blackwater: where <sup>same day</sup> accordingly the said Tyrone met with him; and after other speeches by farther discourse the said Tyrone told the said Sir William, and delivered it with an oath, that within these two months he should see the greatest alteration, and the strangest, that he the said Sir William could imagine, or ever saw in his life: and said that he hoped, before it were long, that he the said Tyrone should have a good share in England: which speeches of the alteration Tyrone reiterated two or three several times.

WILLIAM WARREN.

Certified from the council of Ireland to the lords of the council here.  
The



The declaration of THOMAS WOOD 20 Januarii, 1599, taken before the lord BUCKHURST lord High Treasurer, the earl of NOTTINGHAM lord High Admiral, Sir ROBERT CECIL principal secretary, and Sir J. FORTESCUE chancellor of the exchequer.

THE said Wood said, that happening to be with the lord Fitzmorris baron of Lickinaw, at his house of Lickinaw, between Michaelmas and Allhalowide last, the said baron walking abroad with the said Wood, asked of him what force the earl of Essex was of in England; he answered, he could not tell, but said he was well beloved of the commonalty. Then said the baron that the earl was gone for England, and had discharged many of the companies of Ireland, and that it was agreed that he should be king of England; and Onele to be viceroy of Ireland; and whensoever he should have occasion, and would send for them, Onele should send him eight thousand men out of Ireland. The said Wood asked the baron, how he knew that? He answered, that the earl of \* Desmond had written to him so much.

\* The titular earl that is in rebellion

THOMAS WOOD.

Confessed in the presence of THOMAS BUCKHURST, ROBERT CECIL,  
NOTTINGHAM, JOHN FORTESCUE.

The confession of JAMES KNOWD, taken the sixteenth of February, 1600, before Sir ANTHONY SAINTLEGER master of the rolls in Ireland, and ROGER WILBRANAM master of the requests.

OWNEY mac Rory having secret intelligence of the friendship between the earl of Essex and Tyrone, wrote to Tyrone, desiring him to certify him thereof, whereby he might frame his course accordingly, and not do any thing contrary to their agreement: which letter myself did write by Owney's appointment (for then I was in credit with him;) in which letter he also desired Tyrone to send him some munition. The letter, with instructions to that effect, was in my presence delivered to one Turlagh mac Davy o Kelly, a man of secrecy, sufficiency, and trust with Owney; and he carried it to Tyrone: before whose return Owney grew suspicious of me, because I sometimes belonged to Mr. Bowen, and therefore they would not trust me, so as I could not see the answer: but yet I heard by many of their secret council, that the effect thereof was, That the earl of Essex should be king of England, and Tyrone of Ireland. Afterwards I met with Turlagh mac Davy, the messenger aforesaid, and asked him whether he brought an answer of the letter from Tyrone. He said he did, and delivered it to Owney. And then I asked him what he thought of the wars. He told me he had good hope the last year, and had none this year: his reason was (as he said) that the earl of Essex was to take their part, and they should aid him towards the conquest of England; and now they were hindered thereof by means of his apprehension.

I, dwelling with the tanist of the country (my mother's cousin german) heard him speak sundry times, that now the earl of Essex had gotten one of the swords, he would never forego his government until he became king of England, which was near at hand.

I saw a letter which the earl of Essex writ to Owney, to this effect; That if Owney came to him, he would speak with him about that, which if he would follow, should be happy for him and his country.

JAMES KNOWD.

Exam. per ANTHONY SAINTLEGER, ROGER WILBRANAM.



The declaration of DAVID HETHRINGTON, an ancient captain and fervitor in Ireland, 6 January 1599, taken before the lord BUCKHURST, lord High Treasurer, the earl of NOTTINGHAM lord High Admiral, Sir ROBERT CECIL principal secretary, and Sir JOHN FORTESCUE chancellor of the exchequer.

HE the said David Hethrington riding into the edge of the county of Kildare, about the end of the first cessation, fortune'd to meet with one James Occurren, one of the horsemen of Master Bowen provost marshal of Leinster, who told him that the said James Occurren meeting lately with a principal follower of Owney mac Rory, chief of the Moores, Owney's man asked him what news he heard of the earl of Essex. To which James Occurren answered, that he was gone for England: whereunto he said, Nay, if you can tell me no news, I can tell you some; the earl of Essex is now in trouble for us, for that he would do no service upon us; which he never meant to do, for he is ours, and we are his.

DAVID HETHRINGTON.

Confessed in the presence of THO. BUCKHURST, RO. CECIL,  
NOTTINGHAM, JO. FORTESCUE.

The first confession of Sir FERDINANDO GORGE, knight, the 16th of February, 1600, taken before Sir THOMAS EGERTON lord Keeper of the great seal, the lord BUCKHURST lord High Treasurer, the earl of NOTTINGHAM lord High Admiral, and Sir ROBERT CECIL principal secretary.

HE saith the earl of Essex wrote a letter to him in January, complaining of his misfortune: that he desired his company, and desired his repair up to him by the second of February; that he came to town on Saturday seven-night before the earl's insurrection, and that the same night late he visited the earl: who, after compliments, told him that he stood on his guard, and resolved not to hazard any more commandments or restraints; that he desired him to rest him that night and to repair unto him again, but in such sort as it might not be noted.

That he had been with the earl two or three times that week; and on Saturday, being the seventh of February, the earl told him that he had been sent for by the lords, and refused to come: delivering farther, that he resolved to defend himself from any more restraint.

He farther saith, that it was in question the same Saturday night, to have stirred in the night, and to have attempted the court. But being demanded, whether the earl could have had sufficient company to have done any thing in the night: he answered, that all the earl's company were ready at one hour's warning, and had been so before, in respect that he had meant long before to stand upon his guard.

That it was resolved to have the court first attempted; that the earl had three hundred gentlemen to do it; but that he the said Ferdinando Gorge was a violent dissuader of him from that purpose, and the earl most confident in the party of London, which he meant (upon a later dispute) first to assure; and that he was also assured of a party in Wales, but meant not to use them, until he had been possessed of the court.

That the earl and Sir Christopher Blunt understanding that Sir Walter Raleigh had sent to speak with him in the morning, the said Sir Christopher Blunt persuaded him, either to surprise Sir Walter Raleigh, or to kill him. Which when he utterly refused, Sir Christopher Blunt sent four shot after him in a boat.

That at the going out of Essex-house gate, many cried out, To the court, to the court. But my lord of Essex turned him about towards London.



# CONFESSIONS AND OTHER EVIDENCES.

That he meant, after possession of the court, to call a parliament; and therein to proceed as cause should require. At that time of the consultation on Saturday night, my lord was demanded, what assurance he had of those he made account to be his friends in the city? Whereunto he replied, that there was no question to be made of that, for one, amongst the rest, that was presently in one of the greatest commands amongst them, held himself to be interested in the cause (for so he phrased it) and was colonel of a thousand men, which were ready at all times; besides others that he held himself as assured of, as of him, and able to make as great numbers. Some of them had at that instant (as he reported to us) sent unto him, taking notice of as much as he made us to know of the purpose intended to have intrapped him, and made request to know his pleasure.

Exam. per THO. EGERTON, C. S.      NOTTINGHAM,  
THO. BUCKHURST,      RO. CECIL.

The second confession of Sir FERDINANDO GORGE the 18th of February, 1600, all written of his own hand; and acknowledged in the presence of Sir THOMAS EGERTON lord Keeper of the great seal, the lord BUCKHURST lord High Treasurer, the earl of Nottingham lord High Admiral, and Sir ROBERT CECIL principal secretary.

ON Tuesday before the insurrection (as I remember) I was sent unto by my lord of Essex, praying me to meet my lord of Southampton, Sir Charles Davers, Sir John Davis, and other his friends at Drury-house; where I should see a schedule of his friends names, and projects to be disputed upon. Whither I came accordingly, and found the foresaid earl, Sir Charles Davers, Sir John Davis, and one Mr. Littleton. The names were shewed and numbered to be sixscore; earls, barons, knights, and gentlemen. The projects were these, whether to attempt the court, or the Tower, or to stir his friends in London first, or whether both the court and Tower at an instant? I disliked that counsel. My reasons were that I alledged to them, first, to attempt both with those numbers, was not to be thought on, because that was not sufficient; and therefore advised them to think of something else. Then they would needs resolve to attempt the court, and withal desired mine opinion. But I prayed them first to set down the manner how it might be done. Then Sir John Davis took ink and paper, and assigned to divers principal men their several places; some to keep the gate, some to be in the hall, some to be in the presence, some in the lobby, some in the guard-chamber, others to come in with my lord himself, who should have had the passage given him to the privy-chamber, where he was to have presented himself to her majesty.

Ferd. GORGE.  
Knownledged in the presence of THO. EGERTON, C. S.      NOTTINGHAM,  
THO. BUCKHURST,      RO. CECIL.

The confession of Sir JOHN DAVIS, taken the 18th of February, 1600, before the earl of NOTTINGHAM lord High Admiral, Sir ROBERT CECIL principal secretary, and JOHN HERBERT second secretary of state.

SIR John Davis being demanded, how long before my lord of Essex tumult he knew of such his purpose? He answers, that he knew not directly of any meaning my lord had, until the Sunday seven-night before, or thereabout.

Being



Being demanded, what he knew? Then he answered, that my lord consulted to possess himself of the court, at such convenient time when he might find least opposition. For executing of which enterprises, and of other affairs, he appointed my lord of Southampton, Sir Charles Davers, Sir Ferdinando Gorge, and himself, to meet at Drury-house, and there to consider of the same, and such other projects as his lordship delivered them: and principally, for surprising of the court, and for the taking of the Tower of London. About which business they had two meetings, which were five or six days before the insurrection.

He farther saith, that Sir Christopher Blunt was not at this consultation, but that he stayed and advised with my lord himself about other things to him unknown: for that my lord trusted several men in several businesses, and not all together.

Being demanded, what was resolved in the opinions of these four before named? He saith, that Sir Charles Davers was appointed to the presence-chamber, and himself to the hall: and that my lord was to determine himself, who should have guarded the court-gate, and the water-gate. And that Sir Charles Davers, upon a signal or a watch-word, should have come out of the presence into the guard-chamber; and then some out of the hall to have met him, and so have slept between the guard and their halberds; of which guard they hoped to have found but a dozen, or some such small number.

Being asked, whether he heard that such as my lord disliked should have received any violence? He saith, that my lord avowed the contrary; and that my lord said, he would call them to an honourable trial, and not use the sword.

Being demanded, whether my lord thought his enemies to be Spanish, *bona fide*, or no? He saith, that he never heard any such speech; and if my lord used any such, it came into his head on the sudden.

Being demanded, what party my lord had in London? He saith, that the sheriff Smith was his hope, as he thinketh.

Being demanded, whether my lord promised liberty of catholick religion? He saith, that Sir Christopher Blunt did give hope of it.

JOHN DAVES,

Exam. per NOTTINGHAM, Ro. Cecil, J. HERBERT.

The confession of Sir CHARLES DAVERS, taken the 18th of February, anno 1600, before Sir THOMAS EGERTON lord Keeper of the great seal, the lord BUCKHURST lord High Treasurer, the earl of NOTTINGHAM the lord High Admiral, lord HUNSSON lord Chamberlain, and Sir ROBERT Cecil principal secretary.

HE confesseth that before Christmas the earl of Essex had bethought himself how he might secure his access unto the queen in such sort, as he might not be resisted; but no resolution determinately taken, until the coming up of this examine a little after Christmas.

And then he doth confess, that the resolution was taken to possess himself of the court; which resolution was taken agreeable to certain articles, which the earl of Essex did send to the earl of Southampton, this examine, Sir Ferdinando Gorge, and Sir John Davis, written with the earl's own hand. To which consultation (being held at Drury-house some four or five days before Sunday, that was the eighth of February) Littleton came in towards the end.

The points which the earl of Essex projected under his hand were these:

First, whether it were fit to take the Tower of London. The reason whereof was this: that after the court was possessed, it was necessary to give reputation to the action, by having such a place to bridle the city, if there should be any dislike of their possessing the court.

To the possessing of the court, these circumstances were considered: First, the earl of Essex should have assembled all the noblemen and gentlemen of quality on his party; out of which number he should have chosen so many



as should have possessed all the places of the court, where there might have been any likelihood of resistance: which being done, the earl of Essex, with divers noblemen, should have presented himself to the queen.

The manner how it should have been executed, was in this sort: Sir Christopher Blunt should have had charge of the outer gate, as he thinketh. Sir Charles Davers, this examine, with his company, should have made good the presence, and should have seized upon the halberds of the guard. Sir John Davis should have taken charge of the hall. All this being set, upon a signal given, the earl should have come into the court with his company.

Being asked, what they would have done after? he saith, They would have sent to have satisfied the city, and have called a parliament.

These were the resolutions set down by the earl of Essex of his own hand, after divers consultations.

He saith, Cuffe was ever of opinion, that the earl of Essex should come in this sort to the court.

CHARLES DAVERS.

Exam. per THO. EGERTON, C. S. G. HUNSDON,  
THO. BUCKHURST, Ro. CECIL.  
NOTTINGHAM,

The second confession of Sir CHARLES DAVERS, taken the same day, and set down upon farther calling himself to remembrance, under his own hand, before Sir THO. EGERTON lord Keeper of the great seal, lord BUCKHURST lord High Treasurer, the earl of NOTTINGHAM lord High Admiral, Sir ROBERT CECIL principal secretary.

SOME points of the articles which my lord of Essex sent unto Drury-house (as near as I can remember) were these; whether both the court and the Tower should be both attempted at one time? if both, what numbers should be thought requisite for either? if the court alone, what places should be first possessed? by what persons?

And for those which were not to come into the court beforehand, where and in what sort they might assemble themselves, with least suspicion, to come in with my lord?

Whether it were not fit for my lord, and some of the principal persons, to be armed with privy coats?

CHARLES DAVERS.

Knownedged in the presence of THO. EGERTON, C. S. NOTTINGHAM,  
THO. BUCKHURST, ROBERT CECIL.

The first confession of Sir CHRISTOPHER BLUNT, examined the 18th of February, 1600, before Jo. HERBERT second secretary of estate, and in the presence of Nic. KEMPE counsellor at law, WILLIAM WATMARKE, WILLIAM MARTIN, ROBERT ANDREWS, citizens, JOHN TREVOR surveyor of the navy, and THOMAS THORNEY his surgeon.

HE confesseth that the earl of Essex sent Wiseman, about the 20th of January, to visit his wife, with letters of compliment, and to require him to come up unto him to London, to settle his estate according as he had written unto him before some few days.

Being demanded, to what end they went to the city, to join with such strength as they hoped for there? he confesseth, it was to secure the earl of Essex his life.



life, against such forces as should be sent against him. And being asked, What, against the queen's forces? he answered, That must have been judged afterwards.

But being farther asked, whether he did advise to come unto the court over night? He saith, No; for Sir Ferdinando Gorge did assure, that the alarm was taken of it at the court, and the guards doubled.

Being asked, whether he thought any prince could have endured to have any subject make the city his mediator? or to gather force to speak for him? He saith, he is not read in stories of former times; but he doth not know but that in former times subjects have used force for their mediation.

Being asked, what should have been done by any of the persons that should have been removed from the queen? He answered, that he never found my lord disposed to shed blood; but that any that should have been found, should have had indifferent trial.

Being asked upon his conscience, whether the earl of Essex did not give him comfort, that if he came to authority, there should be a toleration for religion? He confesseth, he should have been to blame to have denied it.

CHRISTOPHER BLUNT.

This was read unto Sir Christopher Blunt, and afterwards signed by him in the presence of us who are under written.

JO. HERBERT,  
NIC. KEMPE,  
WIL. WAIMARKE,

WIL. MARTIN,  
ROB. ANDREWS,

JO. TREVOR,  
TH. THORNEY.

The second confession of Sir CHRISTOPHER BLUNT the same day, viz. the 18th of February; taken before Mr. JOHN HERBERT second secretary of estate, and subscribed by him in the presence of NICHOLAS KEMPE counsellor at law, THOMAS THORNEY his surgeon, and WILLIAM MARTIN, ROBERT ANDREWS, and RANDOLPH BULL, citizens.

SIR Christopher Blunt (after the signing of this confession) being told, that he did not deal plainly, excused himself by his former weakness (putting us in mind that he said once before, that when he was able to speak, he would tell all truth) doth now confess; That four or five days before the earl of Essex did rise, he did set down certain articles to be considered on, which he saw not, until afterwards he was made acquainted with them, when they had amongst themselves disputed: which were these.

One of them was, whether the Tower of London should be taken?

Another, whether they should not possess the court, and so secure my lord, and other men to come to the queen?

For the first concerning the Tower, he did not like it; concluding, that he that had the power of the queen, should have that.

He confesseth that upon Saturday night, when Mr. Secretary Herbert had been with the earl, and that he saw some suspicion was taken, he thought it in vain to attempt the court, and persuaded him rather to save himself by flight, than to engage himself farther, and all his company. And so the resolution of the earl grew to go into the city (in hope, as he said before) to find many friends there.

He doth also say, that the earl did usually speak of his purpose to alter the government.

CHRISTOPHER BLUNT.

Exam. per Jo. HERBERT.

Subscribed in the presence of NIC. KEMPE,  
THO. THORNEY,

W. MARTIN,  
RANDOLPH BULL.

Rob. ANDREWS,

VOL. I.

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The



**The Declaration of the lord Keeper, the earl of Worcester, and the lord Chief Justice of England.**

**UPON** Sunday, being the 8th of February last past, about ten of the clock in the forenoon, the lord Keeper of the great seal, the earl of Worcester, Sir William Knolles comptroller of her majesty's household, and the lord Chief Justice of England, being commanded by direction from the queen's majesty, did repair to the late earl of Essex his house, and finding the gate shut against them, after a little stay they were let in at the wicket: and as soon as they were within the gate, the wicket was shut upon them, and all their servants kept out.

At their coming thither they found the court full of men assembled together in very tumultuous sort; the earls of Essex, Rutland, and Southampton, and the lord Sandys, Mr. Parker, commonly called lord Montegle, Sir Christopher Blunt, Sir Charles Davers, and many other knights and gentlemen, and other persons unknown, which flocked together about the lord Keeper, *etc.* And thereupon the lord Keeper told the earl of Essex, that they were sent from her majesty to understand the cause of this their assembly, and to let them know, that if they had any particular cause of grief against any persons whatsoever, it should be heard, and they should have justice.

Hereupon the earl of Essex with a very loud voice declared, That his life was sought, and that he should have been murdered in his bed; that he had been perfidiously dealt with; that his hand had been counterfeited, and letters written in his name; and that therefore they were assembled there together to defend their lives; with much other speech to like effect. Hereupon the lord Chief Justice said unto the earl, That if they had any such matter of grief, or if any such matter were attempted or purposed against him, he willed the earl to declare it, assuring him that it should be truly related to her majesty, and that it should be indifferently heard, and justice should be done whomsoever it concerned.

To this the earl of Southampton objected the assault made upon him by the lord Gray: Whereunto the lord Chief Justice said, That in his case justice had been done, and the party imprisoned for it. And hereupon the lord Keeper did estions, will the earl of Essex, that whatsoever private matter or offence he had against any person whatsoever, if he would deliver it unto them, they would faithfully and honestly deliver it to the queen's majesty, and doubted not to procure him honourable and equal justice, whomsoever it concerned; requiring him, that if he would not declare it openly, that he would impart it unto them privately, and doubted not but they would satisfy him in it.

Upon this there was a great clamour raised amongst the multitude, crying, "Away, my lord, they abuse you, they betray you, they undo you, you lose your time." Whereupon the lord Keeper put on his hat, and said with a loud voice, "My lord, let us speak with you privately, and understand your griefs;" and I command you all upon your allegiance, to lay down your weapons, and "to depart, which you ought all to do, being thus commanded, if you be good subjects, and owe that duty to the queen's majesty which you profess." Whereupon they all brake out into an exceeding loud shout and cry, crying, "All, all, all."

And whilst the lord Keeper was speaking, and commanding them upon their allegiance, as is before declared, the earl of Essex and the most part of that company did put on their hats, and so the earl of Essex went into the house, and the lord Keeper, *etc.* followed him, thinking that his purpose had been to speak with them privately, as they had required. And as they were going, some of that disordered company cried, "Kill them." And as they were going into the great chamber, some cried, "Cast the great seal out at the window." Some other cried there, "Kill them;" and some other said, "Nay, let us stop them up."

The lord Keeper did often call to the earl of Essex to speak with them privately, thinking still that his meaning had been so, until the earl brought them into his back chamber, and there gave order to have the farther door of that chamber



chamber shut fast. And at his going forth out of that chamber, the lord Keeper pressing again to have spoken with the earl of Essex, the earl said, "My lords, be patient a while, and stay here, and I will go into London, and take order " with the mayor and sheriffs for the city, and will be here again within this " half hour;" and so departed from the lord Keeper, *etc.* leaving the lord Keeper, *etc.* and divers of the gentlemen pensioners in that chamber, guarded by Sir John Davis, Francis Tresham, and Owen Salisbury, with musquet shot, where they continued until Sir Ferdinando Gorge came and delivered them about four of the clock in the afternoon.

In the mean time we did often require Sir John Davis, and Francis Tresham, to suffer us to depart, or at the least to suffer some one of us to go to the queen's majesty, to inform her where and in what sort we were kept. But they answered, That my lord (meaning the earl of Essex) had commanded that we should not depart before his return, which (they said) would be very shortly.

THOMAS EGERTON, C. S. EDWARD WORCESTER. JOHN PORHAM.

The Examination of ROGER earl of RUTLAND, the 12th of February, 1600, taken before Sir THOMAS EGERTON lord Keeper of the great seal, the lord BUCKHURST lord High Treasurer, the earl of NOTTINGHAM lord High Admiral, Sir ROBERT CECIL, principal secretary, and Sir Jo. PORHAM lord Chief Justice of England.

HE saith, that at his coming to Essex-house on Sunday morning last, he found there with the earl of Essex, the lord Sandys, and the lord Chandos, and divers knights and gentlemen. And the earl of Essex told this examinee, that his life was practised to be taken away by the lord Cobham, and Sir Walter Raleigh, when he was sent for to the council; and the earl said, that now he meant by the help of his friends to defend himself: and saith, That the detaining of the lord Keeper and the other lords sent to the earl from the queen, was a stratagem of war: and saith, That the earl of Essex told him that London stood for him, and that sheriff Smith had given him intelligence, that he would make as many men to assist him as he could; and farther the earl of Essex said, that he meant to possess himself of the city, the better to enable himself to revenge him on his enemies, the lord Cobham, Sir Robert Cecil, and Sir Walter Raleigh. And this examinee confesseth, That he resolved to live and die with the earl of Essex; and that the earl of Essex did intend to make his forces so strong, that her majesty should not be able to resist him in the revenge of his enemies. And saith, That the earl of Essex was most inward with the earl of Southampton, Sir Christopher Blunt, and others; who have of long time shewed themselves discontented, and have advised the earl of Essex to take other courses, and to stand upon his guard: and saith, That when the earl of Essex was talking with the lord Keeper, and other the lords sent from her majesty, divers said, "My lord, they mean to abuse you, and you lose time." And when the earl came to sheriff Smith's, he desired him to send for the lord Mayor that he might speak with him; and as the earl went in the streets of London, this examinee said to divers of the citizens, that if they would needs come, that it was better for their safety to come with weapons in their hands: and saith, That the earl of Essex (at the end of the street where sheriff Smith dwelt) cried out to the citizens, that they did him harm, for that they came naked; and willed them to get them weapons; and the earl of Essex also cried out to the citizens, that the crown of England was offered to be sold to the infants: and saith, That the earl burned divers papers that were in a little casket, whereof one was, as the earl said, an history of his troubles: and saith, That when they were assaulted in Essex house, after their return, they first resolved to have made a sally out; and the earl said, that he was determined to die; and yet



yet in the end they changed their opinion and yielded : and saith, That the earl of Southampton, Sir Christopher Blunt, and Sir John Davis, advised the earl of Essex, that the lord Keeper and his company should be detained : and this examine saith, That he heard divers there present cry out, " Kill them, kill them : " and saith, That he thinketh the earl of Essex intended, that after he had possessed himself of the city, he would intreat the lord Keeper and his company to accompany him to the court. He saith, he heard Sir Christopher Blunt say openly, in the presence of the earl of Essex and others, how fearful, and in what several humours they should find them at the court, when they came thither.

RUTLAND.

Exam. per TH. EGERTON, C. S.      RO. CECIL.  
T. BUCKHURST,      JO. PORHAM.  
NOTTINGHAM,

The confession of WILLIAM lord SANDYS, of the parish of Sherborne-Cowdry in the county of Southampton, taken this 16th of February, 1600, before Sir JOHN PORHAM lord Chief Justice,

ROGER WILBRAHAM master of the requests, and EDWARD COKE her majesty's attorney-general.

HE saith, That he never understood that the earl did mean to stand upon his strength till Sunday in the morning, being the 8th of this instant February : and saith, That in the morning of that day this examine was sent for by the earl of Essex about six or seven of the clock ; and the earl sent for him by his servant Warburton, who was married to a widow in Hampshire. And at his coming to the earl there were six or seven gentlemen with him, but remembereth not what they were ; and next after, of a nobleman, came my lord Chandos, and after him came the earl of Southampton, and presently after the earl of Rutland, and after him Mr. Parker, commonly called the lord Montegle : and saith, That at his coming to the earl of Essex, he complained that it was practised by Sir Walter Raleigh to have murdered him as he should have gone to the lord Treasurer's house with Mr. secretary Herbert. And saith, That he was present in the court-yard of Essex-house, when the lord Keeper, the earl of Worcester, Sir William Knolles, and the lord Chief Justice, came from the queen's majesty to the earl of Essex ; and the lord Chief Justice required the earl of Essex to have some private conference with him ; and that if any private wrongs were offered unto him, that they would make true report thereof to her majesty, who, no doubt, would reform the same : and saith, That this examine went with the earl, and the rest of his company, to London to sheriff Smith's, but went not into the house with him, but stayed in the street a while ; and being sent for by the earl of Essex, went into the house, and from thence came with him till he came to Ludgate ; which place being guarded, and resistance being made, and perceived by the earl of Essex, he said unto his company, " Charge ; " and thereupon Sir Christopher Blunt, and others of his company gave the charge, and being repulsed, and this examine hurt in the leg, the earl retired with this examine and others to his house called Essex-house. And on his retire, the earl said to this examine, That if sheriff Smith did not his part, that his part was as far forth as the earl's own ; which moved him to think that he trusted to the city. And when the earl was, after his retire, in Essex-house, he took an iron casket, and broke it open, and burnt divers papers in it ; whereof there was a book, as he taketh it, and said, as he was burning of them, that they should tell no tales to hurt his friends : and saith, that the earl said, that he had a black bag about his neck that should tell no tales.

WILLIAM SANDYS.

Exam. per JO. PORHAM. ROGER WILBRAHAM. EDW. COKE.



The examination of the lord CROMWELL, taken the 7th of March, 1600, by Sir J. PORHAM lord Chief Justice, CHRIST. YELVERTON her majesty's serjeant, and FR. BACON of her majesty's learned counsel.

\* **A**T the sheriff's house this examinee pressed in with the rest, and found the earls shifting themselves in an inner chamber, where he heard my lord of Essex certify the company, that he had been advertised out of Ireland (which he would not now hide from them) that the realm should be delivered over to the hands of the infants of Spain, and that he was wished to look to it; farther, that he was to seek redress for injuries; and that he had left at his house for pledges, the lord Keeper, the earl of Worcester, Sir William Knolles, and the lord Chief Justice.

EDW. CROMWELL.

Exam. per Jo. PORHAM, CHR. YELVERTON, FR. BACON.

Sir CHRISTOPHER BLUNT knight, at the time of his arraignment, did openly at the bar desire to speak with the lord Admiral and Mr. Secretary; before whom he made this confession following; which the earl of SOUTHAMPTON confirmed afterwards, and he himself likewise at his death.

**H**E confesseth, That at the castle of Dublin, in that lodging which was once the earl of Southampton's, the earl of Essex purposing his return into England, advised with the earl of Southampton and himself, of his best manner of going into England for his security, seeing to go he was resolved.

At that time he propounded his going with a competent number of soldiers, to the number of two or three thousand, to have made good his first landing with that force, until he could have drawn unto himself a sufficient strength to have proceeded farther.

From this purpose this examinee did use all forcible persuasions; alledging not only his own ruin, which should follow thereof, and all those which should adhere to him in that action; but urging it to him as a matter most foul, because he was not only held a patron of his country, which by this means he should have destroyed; but also should have laid upon himself an irrevocable blot, having been so deeply bound to her majesty. To which dissuasion the earl of Southampton also inclined.

This design being thus dissuaded by them, then they fell to a second consideration: and therein this examinee confesseth, That he rather advised him, if needs he would go, to take with him some competent number of choice men.

He did not name unto him any particular power that would have come to him at his landing, but assured himself that his army would have been quickly increased by all sorts of discontented people.

He did confess before his going, That he was assured that many of the rebels would be advised by him, but named none in particular.

\* This examination, as appeareth by the date, was taken after Essex's arraignment, but is inserted, to shew how the speech, of the realm to be sold to the infants, which at his arraignment he derived from Mr. Secretary, at sheriff Smith's house he said was advertised out of Ireland: and with this, latter conceals many other examinations.



The examination of the earl of Southampton after his arraignment; taken before the earl of Nottingham lord High Admiral, Sir ROBERT Cecil principal secretary, and Mr. JOHN HERBERT second secretary of estate.

SIR Christopher Blunt being hurt, and lying in the castle of Dublin, in a chamber which had been mine, the earl of Essex one day took me thither with him, where being none but we three, he told us, He found it necessary for him to go into England, and thought it fit to carry with him as much of the army as he could conveniently transport, to go on shore with him to Wales, and there to make good his landing with those, till he could send for more; not doubting but his army would so increase in a small time, that he should be able to march to London, and make his conditions as he desired.

To which project I answered, That I held it altogether unfit, as well in respect of his conscience to God, and his love to his country, as his duty to his sovereign, of which he (of all men) ought to have greatest regard, seeing her majesty's favours to him had been so extraordinary: wherefore I could never give any consent unto it. Sir Christopher Blunt joined with me in this opinion.

Exam. *per* NOTTINGHAM, Ro. Cecil, J. HERBERT.

The speech of Sir CHRISTOPHER BLUNT, at the time of his death, as near as it could be remembered, March 18, 1600.

MY lords, and you that be present, although I must confess, that it were better fitting the little time I have to breathe, to bestow the same in asking God forgiveness for my manifold and abominable sins, than to use any other discourse, especially having both an imperfection of speech, and, God knows, a weak memory, by reason of my late grievous wound: yet to satisfy all those that are present, what course hath been held by me in this late enterprize, because I was said to be an instigator and setter on of the late earl, I will truly, and upon the peril of my soul, speak the truth.

It is true, that the first time that ever I understood of any dangerous discontentment in my lord of Essex, was about three years ago, at Wansled, upon his coming one day from Greenwich. At that time he spake many things unto me, but descended into no particulars, but in general terms.

After which time, he never brake with me in any matter tending to the alteration of the state (I protest before God) until he came into Ireland, other than I might conceive, that he was of an ambitious and discontented mind. But when I lay at the castle of Thomas Lec, called Reban, in Ireland, grievously hurt, and doubted of my life, he came to visit me, and then began to acquaint me with his intent.

[As he thus spake, the sheriff began to interrupt him, and told him the hour was past. But my lord Gray, and Sir Walter Raleigh captain of the guard, called to the sheriff, and required him not to interrupt him, but to suffer him quietly to finish his prayers and confessions. Sir Christopher Blunt said, Is Sir Walter Raleigh there? Those on the scaffold answered, Yea. To whom Sir Christopher Blunt spake on this matter:]

Sir Walter Raleigh, I thank God that you are present: I had an infinite desire to speak with you, to ask you forgiveness ere I died, both for the wrong done you, and for my particular ill intent towards you: I beseech you forgive me.

Sir Walter Raleigh answered, That he most willingly forgave him, and besought God to forgive him, and to give him his divine comfort: protesting before the Lord, That whatsoever Sir Christopher Blunt meant towards him, for his part he never had any ill intent towards him: and farther said to Sir Christopher Blunt, "I pray you without offence let me put you in mind that you have been esteemed, not only a principal provoker and persuader of the earl of Essex in all his un-  
"dutiful



“ dutiful courtes, but especially an adviser in that which hath been confessed of his purpose to transport a great part of her majesty’s army out of Ireland into England, to land at Milford, and thence to turn it against her sacred person. “ You shall do well to tell the truth, and to satisfy the world.” To which he answered thus :

Sir, if you will give me patience, I will deliver a truth, speaking now my last, in the presence of God, in whose mercy I trust. [And then he directed himself to my lord Gray and my lord Compton, and the rest that sat on horseback near the scaffold.]

When I was brought from Reban to Dublin, and lodged in the castle, his lordship and the earl of Southampton came to visit me ; and to be short, he began thus plainly with me : That he intended to transport a choice part of the army of Ireland into England, and land them in Wales, at Milford or thereabouts ; and so securing his descent thereby, would gather such other forces as might enable him to march to London. To which, I protest before the Lord God, I made this or the like answer : That I would that night consider of it ; which I did.

And the next day the earls came again : I told them, That such an enterprise, as it was most dangerous, so would it cost much blood, as I could not like of it ; besides many hazards, which at this time I cannot remember unto you, neither will the time permit it. But I rather advised him to go over himself with a good train, and make sure of the court, and then make his own conditions.

And although it be true, that (as we all protested in our examinations and arraignments) we never resolved of doing hurt to her majesty’s person (for in none of our consultations was there set down any such purpose) yet, I know, and must confess, if we had failed of our ends, we should (rather than have been disappointed) even have drawn blood from herself. From henceforward he dealt no more with me herein, until he was discharged of his keeper at Essex-house. And then, he again asked mine advice, and disputed the matter with me ; but resolved not. I went then into the country, and before he sent for me (which I was some ten days before his rebellion) I never heard more of the matter. And then he wrote unto me to come up, upon pretence of making some assurances of land, and the like. I will leave the rest unto my confessions, given to that honourable lord Admiral, and worthy Mr. Secretary (to whom I beseech you, Sir Walter Raleigh, commend me) I can requite their favourable and charitable dealing with me, with nought else but my prayers for them. And I beseech God of his mercy, to save and preserve the queen, who hath given comfort to my soul, in that I hear she hath forgiven me all, but the sentence of the law, which I most worthily deserved, and do most willingly embrace ; and hope that God will have mercy and compassion on me, who have offended him as many ways as ever sinful wretch did. I have led a life so far from his precepts, as no sinner more. God forgive it me, and forgive me my wicked thoughts, my licentious life, and this right arm of mine (which I fear me) hath drawn blood in this last action. And I beseech you all bear witness, that I die a Catholic, yet so, as I hope to be saved only by the death and passion of Christ, and by his merits, not ascribing any thing to mine own works. And I trust you are all good people, and your prayers may profit me. Farewell, my worthy lord Gray, and my lord Compton, and to you all ; God send you both to live long in honour. I will desire to say a few prayers, and embrace my death most willingly.

With that he turned from the rail towards the executioner ; and the minister offering to speak with him, he came again to the rail, and besought that his conscience might not be troubled, for he was resolved ; which he desired for God’s sake. Whereupon commandment was given, that the minister should not interrupt him any farther. After which he prepared himself to the block, and so died very manfully and resolutely.



An abstract out of the earl of Essex's confession under his own hand.

UPON Saturday the twenty-first of February, after the late earl of Essex had desired us to come to him, as well to deliver his knowledge of those treasons, which he had formerly denied at the bar, as also to recommend his humble and earnest request, that her majesty would be pleased (out of her grace and favour) to suffer him to die privately in the Tower; he did marvellous earnestly desire, that we would suffer him to speak unto Cusse his secretary: against whom he vehemently complained unto us, to have been a principal instigator to these violent courses which he had undertaken. Wherein he protested, that he chiefly desired that he might make it appear that he was not the only persuader of these great offences which they had committed; but that Blunt, Cusse, Temple, besides those other persons who were at the private conspiracy at Drury-house (to which, though these three were not called, yet they were privy) had most malicious and bloody purposes to subvert the state and government: which could not have been prevented, if his project had gone forward.

This request being granted him, and Cusse brought before him, he there directly and vehemently charged him; and among other speeches used these words: "Henry Cusse, call to God for mercy, and to the queen, and deserve it by declaring truth. For I, that must now prepare for another world, have resolved " to deal clearly with God and the world: and must needs say this to you; " You have been one of the chiefest instigators of me to all these my disloyal " courses into which I have fallen."

Testified by THO. EGERTON, C. S. NOTTINGHAM,  
THO. BUCKHURST, RO. CECIL.

The earl of Essex his confession to three ministers, whose names are under-written, the 25th of February, 1600.

THE late earl of Essex thanked God most heartily, That he had given him a deeper insight into his offence, being sorry he had so stood upon his justification at his arraignment, for he was since that become another man.

He thanked God that his course was so prevented; for if his project had taken effect, God knows (said he) what harm it had wrought in the realm.

He humbly thanked her majesty, that he should die in so private a manner, lest the acclamation of the people might have been a temptation unto him. To which he added, that all popularity and trust in man was vain: the experience whereof himself had felt.

He acknowledged with thankfulness to God, that he was thus justly spewed out of the realm.

He publicly in his prayer and protestation, as also privately, aggravated the detestation of his offence; and especially in the hearing of them that were present at the execution, he exaggerated it with four epithets, desiring God to forgive him his great, his bloody, his crying, and his infectious sin: which word *infectious* he privately had explained to us, that it was a leprosy that had infected far and near.

THOMAS MONTFORD, WILLIAM BARLOW, ABDY ASHTON his chaplain.



THE

## A P P O L O G Y

O F

SIR FRANCIS BACON,

In certain Imputations concerning the late

EARL of ESSSEX.

To the Right Honourable his very good Lord,

The EARL of DEVONSHIRE,  
Lord Lieutenant of IRELAND.

I may please your good lordship, I cannot be ignorant, and ought to be sensible of the wrong which I sustain in common speech, as if I had been false or unthankful to that noble, but unfortunate earl, the earl of Essex: and for satisfying the vulgar sort, I do not so much regard it; though I love a good name, but yet as an handmaid, and attendant of honesty and virtue. For I am of his opinion that said pleasantly, "That it was a shame to him that was a suitor to the mistress, to make love to the waiting-woman;" and therefore to woo or court common fame, otherwise than it followeth on honest courses, I, for my part, find not myself fit or disposed. But, on the other side, there is no worldly thing that concerneth myself, which I hold more dear than the good opinion of certain persons; among which there is none I would more willingly give satisfaction unto, than to your lordship. First, because you loved my lord of Essex, and therefore will not be partial towards me, which is part of that I desire: next, because it hath ever pleased you to shew yourself to me an honourable friend, and so no baseness in me to seek to satisfy you: and lastly, because I know your lordship is excellently grounded in the true rules and habits of duties and moralities, which must be they which shall decide this matter; wherein, my lord, my defence needeth to be but simple and brief: namely, that whatsoever I did concerning that action and proceeding, was done in my duty and service to the queen and the state; in which I would not shew myself false-hearted, nor faint-hearted, for any man's sake living. For every honest man that hath his heart well planted, will forsake his king rather than forsake God, and forsake his friend rather than forsake his king; and yet will forsake any earthly commodity, yea, and his own life in some cases, rather than forsake his friend. I hope the world hath not forgotten these degrees, else the heathen saying, *Amicus usque ad aras*, shall judge them.

And if any man shall say, I did officiously intrude myself into that business, because I had no ordinary place; the like may be said of all the business in effect that passed the hands of the learned counsel, either of state or revenues, these many years, wherein I was continually used. For, as your lordship may remember, the queen knew her strength so well, as she looked her word should be a warrant; and, after the manner of the choicest princes before her, did not always tye her trust to place, but did sometime divide private favour from office.

Vol. I.

7 P

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And I for my part, though I was not so unseen in the world, but I knew the condition was subject to envy and peril; yet because I knew again she was constant in her favours, and made an end where she began; and especially because she upheld me with extraordinary accords, and other demonstrations of confidence and grace, I resolved to endure it in expectation of better. But my scope and desire is, that your lordship would be pleased to have the honourable patience to know the truth, in some particularity, of all that passed in this cause, wherein I had any part, that you may perceive how honest a heart I ever bare to my sovereign, and to my country, and to that nobleman, who had so well deserved of me, and so well accepted of my deservings, whose fortune I cannot remember without much grief. But for any action of mine towards him, there is nothing that passed me in my life-time, that cometh to my remembrance with more clearness, and less check of conscience: for it will appear to your lordship, that I was not only not opposite to my lord of Essex, but that I did occupy the utmost of my wits, and adventure my fortune with the queen, to have reintegrated his, and so continued faithfully and industriously, till his last fatal impatience (for so I will call it) after which day there was not time to work for him; though the same, my affection, when it could not work on the subject proper, went to the next, with no ill effect towards some others, who, I think, do rather not know it, than not acknowledge it. And this I will assure your lordship, I will leave nothing untold, that is truth, for any enemy that I have, to add; and on the other side, I must reserve much which makes for me, in many respects of duty, which I esteem above my credit: and what I have here set down to your lordship, I protest, as I hope to have any part in God's favour, is true.

It is well known, how I did many years since dedicate my travels and studies to the use, and (as I may term it) service of my lord of Essex, which, I protest before God, I did not, making election of him as the likeliest means of mine own advancement, but out of the humour of a man, that ever from the time I had any use of reason (whether it were reading upon good books, or upon the example of a good father, or by nature) I loved my country more than was answerable to my fortune; and I held at that time my lord to be the fittest instrument to do good to the state, and therefore I applied myself to him in a manner which I think happeneth rarely among men: for I did not only labour carefully and industriously in that he set me about, whether it were matter of advice or otherwise, but, neglecting the queen's service, mine own fortune, and in a sort my vocation, I did nothing but advise and ruminate with myself, to the best of my understanding, propositions and memorials of any thing that might concern his lordship's honour, fortune, or service. And when, not long after I entered into this course, my brother Mr. Anthony Bacon came from beyond the seas, being a gentleman whose ability the world taketh knowledge of for matters of state, especially foreign, I did likewise knit his service to be at my lord's disposing. And on the other side, I must and will ever acknowledge my lord's love, trust, and favour towards me; and last of all his liberality, having infeofed me of land which I sold for eighteen hundred pounds to Mr. Reynolds Nicholas, which, I think, was more worth; and that at such a time, and with so kind and noble circumstances, as the manner was as much as the matter; which, though it be but an idle digression, yet because I am not willing to be short in commemoration of his benefits, I will presume to trouble your lordship with relating to you the manner of it. After the queen had denied me the solicitor's place, for the which his lordship had been a long and earnest suitor on my behalf, it pleased him to come to me from Richmond to Twickenham Park, and brake with me, and said: "Mr. Bacon, the queen hath denied me the place for you, and hath placed another; I know you are the least part of your own matter, but you fare ill because you have chosen me for your mean and dependence: you have spent your time and thoughts in my matters; I die (these were his very words) if I do not somewhat towards your fortune, you shall not deny to accept a piece of land which I will bestow upon you." My answer, I remember, was, that for my fortune it was no great matter; but that his lordship's offer made me call to mind what was wont to be said, when I was



in France, of the Duke of Guise, that he was the greatest usurer in France, because he had turned all his estate into obligations: meaning, that he had left himself nothing, but only had bound numbers of persons to him. "Now, my lord, said I, I would not have you imitate his course, nor turn your state thus by great gifts into obligations, for you will find many bad debtors." He bade me take no care for that, and pressed it: whereupon I said, "My lord, I see I must be your homager, and hold land of your gift; but do you know the manner of doing homage in law? Always it is with a saving of his faith to the king and his other lords; and therefore, my lord, said I, I can be no more yours than I was, and it must be with the ancient savings; and if I grow to be a rich man, you will give me leave to give it back again to some of your unrewarded followers."

But to return: sure I am (though I can arrogate nothing to myself but that I was a faithful remembrancer to his lordship) that while I had most credit with him his fortune went on best: and yet in two main points we always directly and contradictorily differed, which I will mention to your lordship, because it giveth light to all that followed. The one was, I ever set this down, that the only course to be held with the queen, was by obsequiousness and observance; and I remember I would usually engage confidently, that if he would take that course constantly, and with choice of good particulars to express it, the queen would be brought in time to Ahasuerus's question, to ask, *What should be done to the man that the king would honour?* Meaning, that her goodness was without limit, where there was a true concurrence: which I knew in her nature to be true. My lord, on the other side, had a settled opinion, that the queen could be brought to nothing but by a kind of necessity and authority; and I well remember, when by violent courses at any time he had got his will, he would ask me, "Now, Sir, whose principles be true?" And I would again say to him; "My lord, these courses be like to hot waters, they will help at a pang; but if you use them you shall spoil the stomach, and you shall be fain still to make them stronger and stronger, and yet in the end they will lessen their operation; with much other variety, wherewith I used to touch that string. Another point was, that I always vehemently dissuaded him from seeking greatness by a military dependence, or by a popular dependence, as that which would breed in the queen jealousy, in himself presumption, and in the state perturbation: and I did usually compare them to Icarus's two wings, which were joined on with wax, and would make him venture to soar too high, and then fall him at the height. And I would farther say unto him; "My lord, stand upon two feet, and fly not upon two wings: the two feet are the two kinds of justice, commutative, and distributive: use your greatness for advancing of merit and virtue, and relieving wrongs and burdens; you shall need no other art or finesse:" but he would tell me, that opinion came not from my mind, but from my robe. But it is very true, that I, that never meant to intral myself to my lord of Essex, nor any other man, more than stood with the publick good, did (though I could little prevail) divert him by all means possible from courses of the wars and popularity: for I saw plainly the queen must either live or die; if she lived, then the times would be as in the declination of an old prince; if she died, the times would be as in the beginning of a new; and that if his lordship did rise too fast in these courses, the times might be dangerous for him, and he for them. Nay, I remember, I was thus plain with him upon his voyage to the islands, when I saw every spring put forth such actions of charge and provocation, that I said to him, "My lord, when I came first unto you, I took you for a physician that desired to cure the diseases of the state; but now I doubt you will be like those physicians which can be content to keep their patients low, because they would always be in request." Which plainness he nevertheless took very well, as he had an excellent ear, and was *patientissimus veri*, and assured me the case of the realm required it: and I think this speech of mine, and the like renewed afterwards, pricked him to write that Apology which is in many mens hands.

But this difference in two points so main and material, bred in process of time a discontinuance of privateness (as it is the manner of men seldom to commu-

nicate



nicate where they think their courses not approved) between his lordship and myself; so as I was not called nor advised with for some year and a half before his lordship's going into Ireland, as in former time; yet, nevertheless, touching his going into Ireland, it pleased him expressly, and in a set manner, to desire mine opinion and counsel. At which time I did not only dissuade, but protest against his going, telling him with as much vehemency and asseveration as I could, that absence in that kind would exulcerate the queen's mind, whereby it would not be possible for him to carry himself so, as to give her sufficient contentment; nor for her to carry herself so, as to give him sufficient countenance; which would be ill for her, ill for him, and ill for the state. And because I would omit no argument, I remember I stood also upon the difficulty of the action; setting before him out of histories, that the Irish was such an enemy as the ancient Gauls, or Britons, or Germans were; and that we saw how the Romans, who had such discipline to govern their soldiers, and such donatives to encourage them, and the whole world in a manner to levy them; yet when they came to deal with enemies, which placed their felicity only in liberty, and the sharpness of their sword, and had the natural elemental advantages of woods, and bogs, and hardness of bodies, they ever found they had their hands full of them; and therefore concluded, that going over with such expectation as he did, and through the charishness of the enterprise not like to answer it, would mightily diminish his reputation: and many other reasons I used, so as I am sure I never in any thing in my life-time dealt with him in like earnestness by speech, by writing, and by all the means I could devise. For I did as plainly see his overthrow chained, as it were by destiny, to that journey, as it is possible for any man to ground a judgment upon future contingents. But my lord, howsoever his ear was open, yet his heart and resolution was shut against that advice, whereby his ruin might have been prevented. After my lord's going, I saw then how true a prophet I was, in regard of the evident alteration which naturally succeeded in the queen's mind; and thereupon I was still in watch to find the best occasion that in the weakness of my power I could either take or minister, to pull him out of the fire if it had been possible: and not long after, methought I saw some overture thereof, which I apprehended readily; a particularity which I think to be known to very few, and the which I do the rather relate unto your lordship, because I hear it should be talked, that while my lord was in Ireland I revealed some matters against him, or I cannot tell what; which if it were not a mere slander as the rest is, but had any, though never so little, colour, was surely upon this occasion. The queen, one day at Nonesuch, a little (as I remember) before Cusset's coming over, where I attended her, shewed a passionate distaste of my lord's proceedings in Ireland, as if they were unfortunate, without judgment, contentious, and not without some private end of his own, and all that might be; and was pleased, as she spake of it to many that she trusted least, so to fall into the like speech with me. Whereupon I, who was still awake, and true to my grounds which I thought surest for my lord's good, said to this effect: "Madam, I know not the particulars of estate, and I know this, that princes' actions must have no abrupt periods or conclusions; but otherwise I would think, that if you had my lord of Essex here with a white staff in his hand, as my lord of Leicester had, and continued him still about you for society to yourself, and for an honour and ornament to your attendance and court in the eyes of your people, and in the eyes of foreign ambassadors, then were he in his right element; for to discontent him as you do, and yet to put arms and power into his hands, may be a kind of temptation to make him prove cumbersome and unruly." And therefore if you would *imponere bonam clausulam*, and send for him, and satisfy him with honour here near you, if your affairs, which (as I have said) I am not acquainted with, will permit it, I think were the best way." Which counsellor, your lordship knoweth, if it had been taken, then all had been well, and no contempt in my lord's coming over, nor continuance of these jealousies, which that employment of Ireland bred, and my lord here in his former greatness. Well, the next news that I heard was, that my lord was come over, and that he was committed to his chamber for leaving Ireland without the queen's licence;



licence; this was at Nonesuch, where (as my duty was) I came to his lordship, and talked with him privately about a quarter of an hour, and he asked mine opinion of the course that was taken with him: I told him, “My lord, *Nubecula est, cito transibit*; it is but a mist. But shall I tell your lordship, it is as mists are: if it go upwards, it may perhaps cause a shower; if downwards, “it will clear up. And therefore, good my lord, carry it so, as you take away “by all means all umbrages and distastes from the queen; and especially, if I “were worthy to advise you (as I have been by yourself thought, and now your “question imports the continuance of that opinion) observe three points: first, “make not this cessation or peace, which is concluded with Tyrone, as a service “wherein you glory, but as a shuffling up of a prosecution which was not very “fortunate. Next, represent not to the queen any necessity of estate, whereby, “as by a coercion or wrench, she should think herself inforced to send you back “into Ireland, but leave it to her. Thirdly, seek accels *importune, opportune*, “seriously, sportingly, every way.” I remember my lord was willing to hear me, but spake very few words, and shook his head sometimes, as if he thought I was in the wrong; but, sure I am, he did just contrary in every one of these three points. After this, during the while since my lord was committed to my lord Keeper’s, I came divers times to the queen, as I had used to do, about causes of her revenue and law business, as is well known; by reason of which access, according to the ordinary charities of court, it was given out, that I was one of them that incensed the queen against my lord of Essex. These speeches I cannot tell, nor I will not think, that they grew any way from her majesty’s own speeches, whose memory I will ever honour; if they did, she is with God, and *Miserum est ab illis laedi, de quibus non possis quæri*. But I must give this testimony to my lord Cecil, that one time in his house at the Savoy, he dealt with me directly, and said to me, “Cousin, I hear it, but I believe it not, that “you should do some ill office to my lord of Essex; for my part I am merely “passive, and not active in this action; and I follow the queen, and that heavily, “and I lead her not; my lord of Essex is one that in nature I could consent “with as well as with any one living; the queen indeed is my sovereign, and I “am her creature, I may not lose her, and the same course I would wish you to “take.” Whereupon I satisfied him how far I was from any such mind. And as sometimes it cometh to pass, that mens inclinations are opened more in a toy, than in a serious matter: a little before that time, being about the middle of Michaelmas term, her majesty had a purpose to dine at my lodge at Twickenham Park, at which time I had (though I profess not to be a poet) prepared a sonnet directly tending and alluding to draw on her majesty’s reconciliation to my lord; which, I remember, also I shewed to a great person, and one of my lord’s nearest friends, who commended it. This, though it be (as I said) but a toy, yet it shewed plainly in what spirit I proceeded; and that I was ready not only to do my lord good offices, but to publish and declare myself for him; and never was I so ambitious of any thing in my life-time, as I was to have carried some token or favour from her majesty to my lord; using all the art I had, both to procure her majesty to send, and myself to be the messenger. For as to the former I feared not to alledge to her, that this proceeding toward my lord was a thing towards the people very unplaussible; and therefore wished her majesty, however she did, yet to discharge herself of it, and lay it upon others; and therefore that she should intermix her proceeding with some immediate graces from herself, that the world might take knowledge of her princely nature and goodness, lest it should alienate the hearts of her people from her: which I did stand upon; knowing well that if she once relented to send or visit, those demonstrations would prove matter of substance for my lord’s good. And to draw that employment upon myself, I advised her majesty, that whosoever God should move her to turn the light of her favours towards my lord, to make signification to him thereof; that her majesty, if she did it not in person, would at the least use some such mean as might not intitle themselves to any part of the thanks, as persons that were thought mighty with her to work her, or to bring her about; but to use some such as could not be thought but a mere conduit of her own goodness.



goodness. But I could never prevail with her, though I am persuaded she saw plainly whereat I levelled; and she plainly had me in jealousy, that I was not hers indirectly, but still had inward and deep respects towards my lord, more than stood at that time with her will and pleasure. About the same time I remember an answer of mine in a matter which had some affinity with my lord's cause, which though it grew from me, went after about in others names. For her majesty being mightily incensed with that book which was dedicated to my lord of Essex, being a story of the first year of King Henry IV. thinking it a seditious prelude to put into the people's head boldness and faction, said, She had an opinion that there was treason in it, and asked me if I could not find any places in it that might be drawn within case of treason: whereto I answered; For treason surely I found none, but for felony very many. And when her majesty hastily asked me, Wherein? I told her, the author had committed very apparent theft: for he had taken most of the sentences of Cornelius Tacitus, and translated them into English, and put them into his text. And another time, when the queen would not be persuaded that it was his writing whose name was to it, but that it had some more mischievous author; and said with great indignation, That she would have him racked to produce his author: I replied; "Nay, madam, he is a doctor, never rack his person, but rack his style; let him have pen, ink, and paper, and help of books, and be enjoined to continue the story where it breaketh off, and I will undertake by collating the styles to judge whether he were the author or no." But for the main matter, sure I am, when the queen at any time asked mine opinion of my lord's case, I ever in one tenour said unto her; That they were faults which the law might term contempts; because they were the transgression of her particular directions and instructions: but then what defence might be made of them, in regard of the great interest the person had in her majesty's favour; in regard of the greatness of his place, and the ampleness of his commission; in regard of the nature of the business, being action of war, which in common cases cannot be tyed to strictness of instructions; in regard of the distance of the place, having also a sea between, that his demands and her commands must be subject to wind and weather; in regard of a council of state in Ireland, which he had at his back to avow his actions upon; and lastly, in regard of a good intention, that he would alledge for himself; which, I told her, in some religions was held to be a sufficient dispensation for God's commandments, much more for princes: in all these regards, I besought her majesty to be advised again and again, how she brought the cause into any publick question. Nay, I went farther; for I told her, my lord was an eloquent and well-spoken man; and besides his eloquence of nature or art, he had an eloquence of accident which passed them both, which was the pity and benevolence of his hearers; and therefore, that when he should come to his answer for himself, I doubted his words would have so unequal a passage above theirs that should charge him, as would not be for her majesty's honour; and therefore wished the conclusion might be, that they might wrap it up privately between themselves; and that she would restore my lord to his former attendance, with some addition of honour to take away discontent. But this I will never deny; that I did shew no approbation generally of his being sent back again into Ireland, both because it would have carried a repugnancy with my former discourse, and because I was in mine own heart fully persuaded, that it was not good, either for the queen, or for the state, or for himself: and yet I did not dissuade it neither, but left it ever as *locus lubricus*. For this particularity, I do well remember, that after your lordship was named for the place in Ireland, and not long before your going, it pleased her majesty at Whitehall to speak to me of that nomination: at which time I said to her; "Surely, madam, if you mean not to employ my lord of Essex thither again, your majesty cannot make a better choice;" and was going on to shew some reason, and her majesty interrupted me with great passion: "Essex!" said she; "whenever I send Essex back again into Ireland, I will marry you, claim it of me." Whereunto I said; "Well, madam, I will release that contract, if his going be for the good of your state." Immediately after the queen had thought of a course (which was

also



also executed) to have somewhat published in the Star-chamber, for the satisfaction of the world, touching my lord of Essex his restraint; and my lord not to be called to it; but occasion to be taken by reason of some libels then dispersed: which when her majesty propounded unto me, I was utterly against it; and told her plainly, That the people would say, that my lord was wounded upon his back, and that justice had her balance taken from her, which ever consisted of an accusation and defence; with many other quick and significant terms to that purpose: inasmuch that, I remember, I said, that my lord *in foro jamas* was too hard for her; and therefore wished her, as I had done before, to wrap it up privately. And certainly I offended her at that time, which was rare with me: for I call to mind, that both the Christmas, Lent, and Easter term following, though I came divers times to her upon law business, yet methought her face and manner was not so clear and open to me as it was at the first. And she did directly charge me, that I was absent that day at the Star-Chamber, which was very true; but I alledged some indisposition of body to excuse it: and during all the time aforesaid, there was *alium silentium* from her to me touching my lord of Essex's causes.

But towards the end of Easter term her majesty brake with me, and told me, That she had found my words true; for that the proceeding in the Star-chamber had done no good, but rather kindled factious bruits (as she termed them) than quenched them; and therefore, that she was determined now, for the satisfaction of the world, to proceed against my lord in the Star-chamber by an information *ex tunc*, and to have my lord brought to his answer: howbeit, she said, she would assure me, that whatsoever she did should be towards my lord *ad castigandam, et non ad destructionem*; as indeed she had often repeated the same phrase before: Whereunto I said (to the end utterly to divert her) "Madam, if you will have me speak to you in this argument, I must speak to you as Fryar Bacon's head-spake, that said first, *Time is*; and then *Time was*; and *Time will never be*; for certainly, said I, it is now far too late; the matter is cold, and hath taken too much wind." Whereat she seemed again offended, and rose from me; and that resolution for a while continued: and after, in the beginning of Midsummer term, I attending her, and finding her settled in that resolution (which I heard of also otherwise) she falling upon the like speech; it is true, that seeing no other remedy, I said to her slightly, "Why, madam, if you will needs have a proceeding, you were best have it in some such sort as Ovid spake of his mistress; *est aliquid luce patente minus*; to make a council-table matter of it, and there an end:" which speech again she seemed to take in ill part; but yet I think it did good at that time, and helped to divert that course of proceeding by information in the Star-chamber. Nevertheless, afterwards it pleased her to make a more solemn matter of the proceeding; and some few days after, an order was given that the matter should be heard at York-house, before an assembly of counsellors, peers, and judges, and some audience of men of quality to be admitted: and then did some principal counsellors send for us of the learned counsel, and notify her majesty's pleasure unto us; save that it was said to me openly by one of them, that her majesty was not yet resolved whether she would have me forborn in the business or no. And hereupon might arise that other sinister and untrue speech, that, I hear, is raised of me, how I was a suitor to be used against my lord of Essex at that time: for it is very true, that I that knew well what had passed between the queen and me, and what occasion I had given her both of dislike and distrust, in crossing her disposition, by standing steadfastly for my lord of Essex, and suspecting it also to be a stratagem arising from some particular emulation, I writ to her two or three words of compliment, signifying to her majesty, "That if she would be pleased to spare me in my lord of Essex's cause, out of the consideration she took of my obligation to wards him, I should reckon it for one of her greatest favours: but otherwise desiring her majesty to think that I knew the degrees of duties; and that no particular obligation whatsoever to any subject could supplant or weaken that civility of duty that I did owe and bear to her and her service." And this was the goodly suit I made, being a respect no man that had his wits could have omitted:



omitted; but nevertheless I had a farther reach in it; for I judged that day's work would be a full period of any bitterness or harshness between the queen and my lord: and therefore, if I declared myself fully according to her mind at that time, which could not do my lord any manner of prejudice, I should keep my credit with her ever after, whereby to do my lord service. Hereupon the next news that I heard, was, that we were all sent for again; and that her majesty's pleasure was, we all should have parts in the business: and the lords falling into distribution of our parts, it was allotted to me, that I should set forth some undaunted carriage of my lord, in giving occasion and countenance to a seditious pamphlet, as it was termed, which was dedicated unto him, which was the book before mentioned of king Henry IV. Whereupon I replied to that allotment, and said to their lordships, That it was an old matter, and had no manner of coherence with the rest of the charge, being matters of Ireland: and therefore, that I having been wronged by bruises before, this would expose me to them more; and it would be said I gave in evidence mine own tales. It was answered again with good shew, That because it was considered how I stood tied to my lord of Essex, therefore that part was thought fittest for me, which did him least hurt: for that whereas all the rest was matter of charge and accusation, this only was but matter of caveat and admonition. Wherewith though I was in mine own mind little satisfied, because I knew well a man were better to be charged with some faults, than admonished of some others: yet the conclusion binding upon the queen's pleasure directly, *volens nolens* I could not avoid that part that was laid upon me: which part, if in the delivery I did handle not tenderly (though no man before me did in so clear terms free my lord from all disloyalty as I did) that, your lordship knoweth, must be ascribed to the superior duty I did owe to the queen's fame and honour in a publick proceeding, and partly to the intention I had to uphold myself in credit and strength with the queen, the better to be able to do my lord good offices afterwards: for as soon as this day was past, I lost no time; but the very next day following (as I remember) I attended her majesty, fully resolved to try and put in ure my utmost endeavour (so far as I in my weakness could give furtherance) to bring my lord again speedily into court and favour; and knowing (as I supposed at least) how the queen was to be used, I thought that to make her conceive that the matter went well then, was the way to make her leave off there: and I remember well, I said to her, "You have  
 "now, madam, obtained victory over two things, which the greatest princes in  
 "the world cannot at their wills subdue; the one is over fame; the other is over  
 "a great mind: for surely the world is now (I hope) reasonably well satisfied;  
 "and for my lord, he did shew that humiliation towards your majesty, as I am  
 "persuaded he was never in his life-time more fit for your majesty's favour than  
 "he is now: therefore if your majesty will not mar it by lingering, but give  
 "over at the best, and now you have made so good a full point, receive him  
 "again with tenderness, I shall then think, that all that is past is for the best."  
 Whereat, I remember, she took exceeding great contentment, and did often  
 iterate and put me in mind, that she had ever said, That her proceedings should  
 be *ad reparationem*, and not *ad ruinam*; as who saith, that now was the time  
 I should well perceive, that that saying of hers should prove true. And farther  
 she willed me to set down in writing all that passed that day. I obeyed her com-  
 mandment, and within some few days after brought her again the narration,  
 which I did read unto her in two several afternoons: and when I came to that  
 part that set forth my lord's own answer (which was my principal care) I do well  
 bear in mind, that she was extraordinarily moved with it, in kindness and relent-  
 ing towards my lord; and told me afterwards (speaking how well I had expressed  
 my lord's part) That she perceived old love would not easily be forgotten:  
 whereunto I answered suddenly, that I hoped she meant that by herself. But  
 in conclusion I did advise her, That now she had taken a representation of the  
 matter to herself, that she would let it go no farther: "For, madam," said I,  
 "the fire blazeth well already, what should you tumble it? And besides, it  
 "may please you to keep a convenience with yourself in this case: for since  
 "your express direction was, there should be no register nor clerk to take this  
 "sentence,



“ sentence, nor no record or memorial made up of the proceeding, why should “ you now do that popularly, which you would not admit to be done judicially ?” Whereupon she did agree that that writing should be suppressed ; and I think there were not five persons that ever saw it. But from this time forth, during the whole latter end of that summer, while the court was at Nonfuch and Oadlands, I made it my task and scope to take and give occasions for my lord’s redintegration in his fortunes : which my intention I did also signify to my lord as soon as ever he was at his liberty ; whereby I might without peril of the queen’s indignation write to him : and having received from his lordship a courteous and loving acceptance of my good will and endeavours, I did apply it in all my accesses to the queen, which were very many at that time ; and purposely sought and wrought upon other variable pretences, but only and chiefly for that purpose. And on the other side, I did not forbear to give my lord from time to time faithful advertisement what I found, and what I wished. And I drew for him, by his appointment, some letters to her majesty ; which though I knew well his lordship’s gift and style was far better than mine own, yet, because he required it, alledging, that by his long restraint he was grown almost a stranger to the queen’s present conceits, I was ready to perform it : and sure I am, that for the space of six weeks or two months, it prospered so well, as I expected continually his restoring to his attendance. And I was never better welcome to the queen, nor more made of than when I spake fullest and boldest for him : in which kind the particulars were exceeding many ; whereof, for an example, I will remember to your lordship one or two. As at one time, I call to mind, her majesty was speaking of a fellow that undertook to cure, or at least to ease my brother of his gout, and asked me how it went forward : and I told her majesty, That at the first he received good by it ; but after in the course of his cure he found himself at a stay, or rather worse : the queen said again, “ I will tell you, Bacon, the error of it : “ the manner of these physicians, and especially these empiricks, is to continue “ one kind of medicine ; which at the first is proper, being to draw out the ill “ humour ; but, after, they have not the discretion to change the medicine, but “ apply still drawing medicines, when they should rather intend to cure and corroborate the part. Good Lord ! madam (said I) how wisely and aptly can “ you speak and discern of physick ministered to the body, and consider not that “ there is the like occasion of physick ministered to the mind : as now in the “ case of my lord of Essex, your princely word ever was, that you intended “ ever to reform his mind, and not ruin his fortune : I know well you cannot “ but think that you have drawn the humour sufficiently ; and therefore it were “ more than time, and it were but for doubt of mortifying or exulcerating, that “ you did apply and minister strength and comfort unto him : for these same “ gradations of yours are fitter to corrupt than correct any mind of greatness.” And another time I remember she told me for news, That my lord had written unto her some very dutiful letters, and that she had been moved by them ; and when she took it to be the abundance of his heart, she found it to be but a preparative to a suit for the renewing of his farm of sweet wines. Whereunto I replied, “ O madam, how doth your majesty construe these things, as if these “ two could not stand well together, which indeed nature hath planted in all “ creatures ! For there are but two sympathies, the one towards perfection, the “ other towards preservation ; that to perfection, as the iron tendeth to the loadstone ; that to preservation, as the vine will creep towards a stake or prop that “ stands by it ; not for any love to the stake, but to uphold itself. And therefore, “ madam, you must distinguish, my lord’s desire to do you service : is, as to his “ perfection, that which he thinks himself to be born for ; whereas his desire to “ obtain this thing of you, is but for a sustentation.” And not to trouble your lordship with many other particulars like unto these, it was at the self-same time that I did draw, with my lord’s privy, and by his appointment, two letters, the one written as from my brother, the other as an answer returned from my lord, both to be by me in secret manner shewed to the queen, which it pleased my lord very strangely to mention at the bar ; the scope of which were but to represent and picture forth unto her majesty my lord’s mind to be such,



as I knew her majesty would faintest have had it: which letters whosoever shall see (for they cannot now be retracted or altered, being by reason of my brother's, or his lordship's servants delivery, long since come into divers hands) let him judge especially if he knew the queen, and do remember those times, whether they were not the labours of one that sought to bring the queen about for my lord of Essex his good. The truth is, that the issue of all his dealing grew to this, that the queen, by some slackness of my lord's, as I imagine, liked him worse and worse, and grew more incensed towards him. Then the remembering belike the continual, and incessant, and confident speeches and courtes that I had held on my lord's side, became utterly alienated from me, and for the space of (at least) three months, which was between Michaelmas and New-year's-tide following, would not so much as look on me, but turned away from me with exprefs and purpose-like discountenance wheresoever she saw me; and at such time as I desired to speak with her about law-business, ever sent me forth very slight refusals, inasmuch as it is most true, that immediately after New-year's-tide I desired to speak with her, and being admitted to her, I dealt with her plainly; and said, "Madam, I see you withdraw your favour from me, and now I have lost many friends for your sake, I shall lose you too: you have put me unlike one of those that the French men call *ensans perdus*, that serve on foot before horsemen; so have you put me into matters of envy without place, or without strength; and I know at ches a pawn before the king is ever much played upon; a great many love me not, because they think I have been against my lord of Essex; and you love me not, because you know I have been for him; yet will I never repent me, that I have dealt in simplicity of heart towards you both, without respect of cautions to myself; and therefore *vidensque pereo*: if I do break my neck, I shall do it in a manner as Mr. Dorington did it, which walked on the battlements of the church many days, and took a view and survey where he should fall. And so, Madam, said I, "I am not so simple but that I take a prospect of mine overthrow; only I thought I would tell you so much, that you may know that it was faith, and not folly that brought me into it, and so I will pray for you." Upon which speeches of mine uttered with some passion, it is true her majesty was exceedingly moved; and accumulated a number of kind and gracious words upon me, and willed me to rest upon this, *Gratia mea sufficit*, and a number of other sensible and tender words and demonstrations, such as more could not be; but as touching my lord of Essex, *ne verbum quidem*. Whereupon I departed, resting then determined to meddle no more in the matter; as that, that I saw would overthrow me, and not be able to do him any good. And thus I made mine own peace with mine own confidence at that time; and this was the last time I saw her majesty before the eighth of February, which was the day of my lord of Essex his misfortune; after which time, for that I performed at the bar in my public service, your lordship knoweth, by the rules of duty that I was to do it honestly, and without pretension; but for any putting myself into it, I protest before God, I never moved either the queen, or any person living, concerning my being used in the service, either of evidence or examination; but it was merely laid upon me with the rest of my fellows. And for the time which passed, I mean between the arraignment and my lord's suffering, I well remember I was but once with the queen, at what time, though I durst not deal directly for my lord as things then stood; yet generally I did both commend her majesty's mercy, terming it to her as an excellent balm that did continually distil from her sovereign hands, and made an excellent odour in the senses of her people; and not only so, but I took hardiness to extenuate, not the fact (for that I durst not) but the danger, telling her, that if some base or cruel-minded persons had entered into such an action, it might have caused much blood and combustion: but it appeared well, they were such as knew not how to play the malefactors; and some other words which I now omit. And as for the rest of the carriage of myself in that service, I have many honourable witnesses that can tell, that the next day after my lord's arraignment, by my diligence and information touching the quality and nature of the offenders, six of nine were stayed, which otherwise had been attainted, I bringing their lord-



ships letter for their stay, after the jury was sworn to pass upon them; so near it went: and how careful I was, and made it my part, that whosoever was in trouble about that matter, as soon as ever his case was sufficiently known and defined of, might not continue in restraint, but be set at liberty; and many other parts, which, I am well assured of, stood with the duty of an honest man. But indeed I will not deny for the case of Sir Thomas Smith of London, the queen demanding my opinion of it, I told her, I thought it was as hard as many of the rest. But what was the reason? Because at that time I had seen only his accusation, and had never been present at any examination of his; and the matter so standing, I had been very untrue to my service, if I had not delivered that opinion. But afterwards, upon a re-examination of some that charged him, who weakened their own testimony, and especially hearing himself *viva voce*, I went instantly to the queen, out of the soundness of my conscience, not regarding what opinion I had formerly delivered, and told her majesty, I was satisfied and resolved in my conscience, that for the reputation of the action, the plot was to countenance the action farther by him in respect of his place, than they had indeed any interest or intelligence with him. It is very true also, about that time her majesty taking a liking of my pen, upon that which I formerly had done concerning the proceeding at York-house, and likewise upon some other declarations, which in former times by her appointment I put in writing, commanded me to pen that book, which was published for the better satisfaction of the world; which I did, but so, as never secretary had more particular and express directions and instructions in every point how to guide my hand in it; and not only so, but after that I had made a first draught thereof, and propounded it to certain principal counsellors by her majesty's appointment, it was perused, weighed, censured, altered, and made almost a new writing, according to their lordships better consideration; wherein their lordships and myself both were as religious and curious of truth, as desirous of satisfaction: and myself indeed gave only words and form of style in pursuing their direction. And after it had passed their allowance, it was again exactly perused by the queen herself, and some alterations made again by her appointment: nay, and after it was set to print, the queen, who, as your lordship knoweth, as she was excellent in great matters, so she was exquisite in small; and noted that I could not forget my ancient respect to my lord of Essex, in terming him ever *my lord of Essex*, *my lord of Essex*, almost in every page of the book, which she thought not fit, but would have it made *Essex*, or the *late earl of Essex*: whereupon of force it was printed *de novo*, and the first copies suppressed by her peremptory commandment.

And this, my good lord, to my farthest remembrance, is all that passed wherein I had part; which I have set down as near as I could in the very words and speeches that were used, not because they are worthy the repetition, I mean those of mine own; but to the end your lordship may lively and plainly discern between the face of truth, and a smooth tale; and the rather also, because in things that passed a good while since, the very words and phrases did sometimes bring to my remembrance the matters: wherein I report me to your honourable judgment, whether you do not see the traces of an honest man: and had I been as well believed either by the queen or by my lord, as I was well heard by them both, both my lord had been fortunate, and so had myself in his fortune.

To conclude therefore, I humbly pray your lordship to pardon me for troubling you with this long narration; and that you will vouchsafe to hold me in your good opinion, till you know I have deserved, or find that I shall deserve the contrary; and so ever I continue

*At your Lordship's honourable commandments very humbly;*

F. B.



## SPEECH in PARLIAMENT,

39 of ELIZABETH,

## Upon the Motion of SUBSIDY.

**A**ND please you, Mr. Speaker, I must consider the time which is spent; but yet so, as I must consider also the matter, which is great. This great cause was, at the first, so materially and weightily propounded; and after, in such sort perswaded and enforced; and by him that last spake, so much time taken, and yet to good purpose; as I shall speak at a great disadvantage: but because it hath been always used, and the mixture of this house doth so require it, that in causes of this nature there be some speech and opinion, as well from persons of generality, as by persons of authority, I will say somewhat, and not much: wherein it shall not be fit for me to enter into, or to insist upon secrets, either of her majesty's coffers, or of her council; but my speech must be of a more vulgar nature.

I will not enter, Mr. Speaker, into a laudative speech of the high and singular benefits, which by her majesty's most politick and happy government we receive, thereby to incite you to a retribution; partly because no breath of man can set them forth worthily; and partly because, I know, her-majesty in her magnanimity doth bestow her benefits like her freest patents, *absque aliqua inde reddendo*; not looking for any thing again (if it were in respect only of her particular) but love and loyalty. Neither will I now at this time put the case of this realm of England too precisely; how it standeth with the subject in point of payments to the crown: though I could make it appear by demonstration, what opinion soever be conceived, that never subjects were partakers of greater freedom and ease; and that whether you look abroad into other countries at this present time, or look back to former times in this our own country, we shall find an exceeding difference in matter of taxes; which now I reserve to mention; not so much in doubt to acquaint your ears with foreign straits, or to dig up the sepulchres of buried and forgotten impositions, which in this case, as by way of comparison, it is necessary you understand; but because speech in the house is fit to perswade the general point, and particularly is more proper and seasonable for the committee: neither will I make any observations upon her majesty's manner of expending and issuing treasure; being not upon excessive and exorbitant donatives; nor upon sumptuous and unnecessary triumphs, buildings, or like magnificence; but upon the preservation, protection, and honour of the realm; for I dare not scan upon her majesty's actions, which it becometh me rather to admire in silence, than to gloss or discourse upon them, though with never so good a meaning. Sure I am that the treasure that cometh from you to her majesty is but as a vapour which riseth from the earth, and gathereth into a cloud, and stayeth not there long; but upon the same earth it falleth again: and what if some drops of this do fall upon France or Flanders? It is like a sweet odour of honour and reputation to our nation throughout the world. But I will only insist upon the natural and inviolate law of preservation.

It is a truth, Mr. Speaker, and a familiar truth, that safety and preservation is, to be preferred before benefit or encrease, inasmuch as those counsels which tend to preservation seem to be attended with necessity: whereas those deliberations which tend to benefit, seem only accompanied with persuasion. And it is ever gain and no loss, when at the foot of the account there remains the purchase of safety. The prints of this are every where to be found: the patient will ever part with some of his blood to save and clear the rest: the sea-faring man will,



in a storm, cast over some of his goods to save and assure the rest; the husband-man will afford some foot of ground for his hedge and ditch, to fortify and defend the rest. Why, Mr. Speaker, the disputer will, if he be wise and cunning, grant somewhat that seemeth to make against him, because he will keep himself within the strength of his opinion, and the better maintain the rest. But this place advertiseth me not to handle the matter in a common place. I will now deliver unto you that, which, upon a *probatum est*, hath wrought upon myself, knowing your affections to be like mine own. There hath fallen out, since the last parliament, four accidents or occurrences of state; things published and known to you all; by every one whereof it seemeth to me, in my vulgar understanding, that the danger of this realm is encreased: which I speak not by way of apprehending fear, for I know I speak to English courages; but by way of pressing provision: for I do find, Mr. Speaker, that when kingdoms and states are entred into terms and resolutions of hostility one against the other; yet they are many times restrained from their attempts by four impediments;

The first is by this same *aliud agere*; when they have their hands full of other matters, which they have embraced, and serveth for a diversion of their hostile purposes.

The next is, when they want the commodity or opportunity of some places of near approach.

The third, when they have conceived an apprehension of the difficulty and churlishness of the enterprise, and that it is not prepared to their hand.

And the fourth is, when a state, through the age of the monarch, groweth heavy and indisposed to actions of great peril and motion; and this dull humour is not sharpened nor inflamed by any provocations or scorn. Now if it please you to examine, whether by removing the impediments in these four kinds the danger be not grown so many degrees nearer us by accidents, as I said, fresh, and all dated since the last parliament.

Soon after the last parliament, you may be pleased to remember how the French king revolted from his religion; whereby every man of common understanding may infer, that the quarrel between France and Spain is more reconcilable, and a greater inclination of affairs to a peace than before: which supposed, it followeth, Spain shall be more free to intend his malice against this realm.

Since the last parliament it is also notorious in every man's knowledge and remembrance, that the Spaniards have possessed themselves of that avenue and place of approach for England, which was never in the hands of any king of Spain before; and that is Calais; which in true reason and consideration of estate of what value or service it is, I know not; but in common understanding, it is a knocking at our doors.

Since the last parliament also that ulcer of Ireland, which indeed brake forth before, hath run on and raged more: which cannot but be a great attractive to the ambition of the council of Spain, who by former experience know of how tough a complexion this realm of England is to be assailed, and therefore, as rheums and fluxes of humours, is like to resort to that part which is weak and distempered.

And lastly, it is famous now, and so will be many ages hence, how by these two sea-journeys we have braved him, and objected him to scorn: so that his blood can be so frozen or mortified, but must needs take flames of revenge upon so mighty a disgrace.

So as this concurrence of occurrents, all since our last assembly, some to deliver and free our enemies, some to advance and bring him on his way, some to tempt and allure him, some to spur on and provoke him, cannot but threaten an outbreak of our peril in great proportion.

Lastly, Mr. Speaker, I will but reduce to the memory of this house one other argument, for ample and large providing and supplying treasure; and this it is.

I see men do with great alacrity and spirit proceed when they have obtained a course they long wished for and were restrained from. Myself can remember both in this honourable assembly, and in all other places of this realm, how forward and affectionate men were to have an invasive war. Then we would say,



in defensive war was like eating and consenting interest, and needs we would be adventurers and assailants; *plures quod vram mente petisti*. Shall we not now make it good? especially when we have tasted so prosperous fruit of our desires.

The first of these expeditions invasive was achieved with great felicity, ravished a strong and famous port in the lap and bosom of their high countries; brought them to such despair as they fired themselves and their Indian fleet in sacrifice, as a good odour and incense unto God for the great and barbarous cruelties which they have committed upon the poor Indians, whither that fleet was sailing; did ordered their reckonings so, as the next news we heard of was nothing but protesting of bills and breaking credit.

The second journey was with notable resolution born up against weather and all difficulties; and besides the success in amusing him and putting him to infinite charge, sure I am it was like a Tartar's or Parthian's bow, which shod with backward, and had a most strong and violent effect and operation both in France and Flanders; so that our neighbours and confederates have reaped the harvest of it; and while the life-blood of Spain went inward to the heart, the outward limbs and members trembled, and could not resist. And lastly, we have a perfect account of all the noble and good blood that was carried forth, and of all our castles and good shipping, without mortality of persons, wreck of vessels, or any manner of diminution. And these have been the happy effects of our so long and so much desired invasive war.

To conclude, Mr. Speaker, therefore, I doubt not but every man will consent that our gift must bear these two marks and badges: the one, of the danger of the calamity so great a proportion, since the last parliament, encreased; the other, of the satisfaction we receive in having obtained our so earnest and ardent desire of an invasive war. *It has been said that the king has been so long in the war that he has almost lost the sense of it.*

## A P P R O C L A M A T I O N

D R A W N

FOR HIS MAJESTY'S USE, Coming in.

[Prepared, but not used.]

**H**AVING great cause at this time to be moved with diversity of affections, we do in first place condole with all our loving subjects of England, for the loss of their so virtuous and excellent queen; being a prince that we always found a dear sister, yea a mother to ourself in many her actions and advices. A prince, whom we hold as an excellent pattern and example to imitate in many her royal virtues and parts of government, and a prince whose days we could have wished to have been prolonged; we reporting ourselves not only to the testimony of our royal heart, but to the judgment of all the world, whether there ever appeared in us any ambitious or impatient desire to prevent God's appointed time. Neither are we so partial to our own honour, but that we do in great part ascribe this our most peaceable and quiet entrance and coming to those our crowns, next under the blessing of almighty God, and our undoubted right, to the fruit of her majesty's peaceable and quiet government, accustoming the people to all loyalty and obedience. As for that which concerneth ourselves, we would have all our loving subjects know, that we do not take so much gladness and contentment in the devolving of these kingdoms unto our royal person, for any addition or increase of glory, power or riches, as in this, that it is so manifest an evidence unto us (especially the manner of it considered) that we stand (though unworthy) in God's favour, who hath put more means into our hands



to reward our friends and servants, and to pardon and obliterate injuries, and to comfort and relieve the hearts and estates of our people and loving subjects, and chiefly to advance the holy religion and church of almighty God, and to deserve well of the christian commonwealth. And more especially we cannot but gratulate and rejoice in this one point, that it hath pleased God to make us the instrument, and, as it were, the corner stone, to unite these two mighty and warlike nations of England and Scotland into one kingdom. For although these two nations are situate upon the continent of one island, and are undivided either by seas or mountains or by diversity of language; and although our neighbouring kingdoms of Spain and France have already had the happiness to be reunited in the several members of those kingdoms formerly disjoined; yet in this island it appeareth not in the records of any true history, no nor scarcely in the conceit of any fabulous narration or tradition, that this whole island of Great Britain was ever united under one sovereign prince before this day. Which as we cannot but take as a singular honour and favour of God unto ourselves; so we may conceive good hope that the kingdoms of Christendom standing distributed and counterpoised, as by this last union they now are, it will be a foundation of the universal peace of all christian princes, and that now the strife that shall remain between them, shall be but an emulation who shall govern best; and most to the weal and good of his people.

Another great cause of our just rejoicing is, the assured hope that we conceive, that whereas our kingdom of Ireland hath been so long time torn and afflicted with the miseries of wars, the making and prosecuting of which wars hath cost such an infinite deal of blood and treasure of our realm of England, to be spilt and consumed thereupon; we shall be able, through God's favour and assistance, to put a speedy and an honourable end to those wars. And it is our princely design and full purpose and resolution, not only to reduce that nation from their rebellion and revolt, but also to reclaim them from their barbarous manners, to justice and the fear of God; and to populate, plant, and make civil all the provinces in that kingdom: which also being an action that not any of our noble progenitors, kings of England, hath ever had the happiness thoroughly to prosecute and accomplish, we take so much to heart as we are persuaded it is one of the chief causes, for the which God hath brought us to the imperial crown of these kingdoms.

Further, we cannot but take great comfort in the state and correspondence which we now stand in of peace and unity with all christian princes, and otherwise, of quietness and obedience of our own people at home: whereby we shall not need to expose that our kingdom of England to any quarrel or war, but rather have occasion to preserve them in peace and tranquillity, and openness of trade with all foreign nations.

Lastly and principally, we cannot but take unspeakable comfort in the great and wonderful content and unity, joy and alacrity, wherewith our loving subjects of our kingdom of England have received and acknowledged us their natural and lawful king and governor, according to our most clear and undoubted right, in so quiet and settled manner, as, if we had been long ago declared and established successor, and had taken all mens oaths and homages, greater and more perfect unity and readiness could not have been. For considering with ourselves, that notwithstanding difference of religion, or any other faction, and notwithstanding our absence so far off, and notwithstanding the sparing and reserved communicating of one another's minds; yet all our loving subjects met in one thought and voice, without any the least disturbance or interruption, yea, hesitation or doubtfulness, or any shew thereof; we cannot but acknowledge it is a great work of God, who hath an immediate and extraordinary direction in the disposing of kingdoms and flows of peoples hearts.

Wherefore after our most humble and devout thanks to almighty God, by whose kings reign, who hath established us king and governor of these kingdoms; we return our hearty and affectionate thanks unto the lords spiritual and temporal, the knights and gentlemen, the cities and towns, and generally unto our commons, and all estates and degrees of that our kingdom of England, for

their



their so acceptable first-fruits of their obedience and loyalties offered and performed in our absence; much commending the great wisdom, courage, and watchfulness used by the peers of that our kingdom (according to the nobility of their bloods and lineages, many of them mingled with the blood royal; and therefore in nature affectionate to their rightful king) and likewise of the counsellors of the late queen, according to their gravity and oath, and the spirit of their good mistress (now a glorious saint in heaven) in carrying and ordering our affairs with that fidelity, moderation, and consent, which in them hath well appeared: and also the great readiness, concord, and cheerfulness in the principal knights and gentlemen of several countries, with the head officers of great cities, corporations, and towns: and do take knowledge by name of the readiness and good zeal of that our chiefest and most famous city, the city of London; the chamber of that our kingdom: assuring them, that we will be unto that city, by all means of confirming and increasing their happy and wealthy estate, not only a just and gracious sovereign lord and king, but a special and bountiful patron and benefactor.

And we on our part, as well in remuneration of all their loyal and loving affections, as in discharge of our princely office, do promise and assure them, that as all manner of estates have concurred and consented in their duty and zeal towards us, so it shall be our continual care and resolution to preserve and maintain every several estate in a happy and flourishing condition, without confusion or over-growing of any one to the prejudice, discontentment, or discouragement of the rest: and generally in all estates we hope God will strengthen and assist us, not only to extirpate all gross and notorious abuses, and corruptions, of simonies, briberies, extortions, oppressions, vexations, burdensome payments, and over-charges, and the like; but further to extend our princely care to the supply of the very neglects and omissions of any thing that may tend to the good of our people. So that every place and service that is fit for the honour or good of the commonwealth shall be filled, and no man's virtue left idle, unemployed, or unrewarded; and every good ordinance and constitution, for the amendment of the estate and times, be revived and put in execution.

In the mean time, minding by God's leave (all delay set apart) to comfort and secure our loving subjects in our kingdom of England by our personal presence there, we require all our loving subjects joyfully to expect the same: and yet so, as we signify our will and pleasure to be, that all such ceremonies and preparations as shall be made and used to do us honour, or to express gratulations be rather comely and orderly, than sumptuous and glorious; and for the expressing of magnificence, that it be rather employed and bestowed upon the funeral of the late queen, to whose memory, we are of opinion, too much honour cannot be done or performed.



## D R A U G H T

O F A

## P R O C L A M A T I O N

T O U C H I N G

## H I S M A J E S T Y ' S S T Y L E.

2<sup>de</sup> JACOBI. [Prepared, not used.]

**A**S it is a manifest token, or rather a substantial effect, of the wrath and indignation of God, when kingdoms are rent and divided, which have formerly been entire and united under one monarch and governour; so on the contrary part, when it shall please the Almighty (by whom kings reign as his deputies and lieutenants) to enlarge his commissions of empire and sovereignty, and to commit those nations to one king to govern, which he hath formerly committed to several kings, it is an evident argument of his great favour both upon king and upon people; upon the king, inasmuch as he may with comfort conceive that he is one of those servants to whom it was said, *Thou hast been faithful in the less, I will make thee lord of more*; upon the people, because the greatness of kingdoms and dominions, especially not being scattered but adjacent and compact, doth ever bring with it greater security from outward enemies, and greater freedom from inward burdens, unto both which people under petty and weak estates are more exposed; which so happy fruit of the union of kingdoms is chiefly to be understood, when such conjunction or augmentation is not wrought by conquest and violence, or by pact and submission, but by the law of nature and hereditary descent. For in conquest it is commonly seen, although the bulk and quantity of territory be increased, yet the strength of kingdoms is diminished, as well by the wasting of the forces of both parts in the conflict, as by the evil coherence of the nation conquering and conquered, the one being apt to be insolent, and the other discontent; and so both full of jealousies and discord. And where countries are annexed only by act of estates and submissions, such submissions are commonly grounded upon fear, which is no good author of continuance, besides the quarrels and revolts which do ensue upon conditional and articulate subjections: but when the lines of two kingdoms do meet in the person of one monarch, as in a true point or perfect angle; and that from marriage (which is the first conjunction in human society) there shall proceed one inheritor in blood to several kingdoms, whereby they are actually united and incorporate under one head; it is the work of God and nature, whereunto the works of force and policy cannot attain; and it is that which hath not in itself any manner of seeds of discord or dissension, other than such as envy and malignity shall sow, and which groundeth an union, not only indissoluble, but also most comfortable and happy amongst the people.

We therefore in all humbleness acknowledge, that it is the great and blessed work of Almighty God, that these two ancient and mighty realms of England and Scotland, which by nature have no true but an imaginary separation, being both situate and comprehended in one most famous and renowned Island of Great Britany, compassed by the ocean, without any mountains, seas, or other boundaries of nature, to make any partition, wall, or trench, between them, and

Vol. I.

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being also exempted from the first curse of disunion, which was the confusion of tongues, and being people of a like constitution of mind and body, especially in warlike prowels and disposition; and yet nevertheless have in so many ages been disjoined under several kings and governors, are now at the last, by right inherent in the commixture of our blood, united in our person and generation; wherein it hath pleased God to anoint us with the oil of gladness and gratulation above our progenitors, kings of either nation. Neither can we sufficiently contemplate and behold the passages, degrees, and insinuations, whereby it hath pleased the eternal God (to whom all his works are from the beginning known and present) to open and prepare a way to this excellent work; having first ordained that both nations should be knit in one true and reformed religion, which is the perfectest band of all unity and union; and secondly, that there should precede so long a peace continued between the nations for so many years last past, whereby all seeds and sparks of ancient discord have been laid asleep, and grown to an obliteration and oblivion; and lastly, that ourselves, in the true measure of our affections, should have so just cause to embrace both nations with equal and indifferent love and inclination, inasmuch as our birth and the passing of the first part of our age hath been in the one nation, and our principal seat and mansion, and the passing of the latter part of our days is like to be in the other. Which our equal and upright holding of the balance between both nations, being the highest point of all others, in our distributive justice, we give the world to know, that we are constantly resolved to preserve inviolate against all emulations and partialities, not making any difference at all between the subjects of either nation, in affection, honours, favours, gifts, employments, confidences, or the like; but only such as the true distinctions of the persons, being capable or not capable, fit or not fit, acquainted with affairs or not acquainted with affairs, needing our princely bounty or not needing the same, approved to us by our experience or not approved, meriting or not meriting, and the several degrees of these and the like conditions, shall in right reason tie us unto, without any manner of regard to the country in itself; to the end that they may well perceive, that in our mind and apprehension they are all one and the same nation; and that our heart is truly placed in the center of government, from whence all lines to the circumference are equal and of one space and distance.

But for the further advancing and perfecting of this work, we have taken into our princely care and cogitations, what it is that may appertain to our own imperial power, right, and authority; and what requireth votes and assents of our parliaments or estates; and again, what may presently be done, and what must be left to further time, that our proceeding may be void of all inconvenience and informality; wherein by the example of Almighty God, who is accustomed to begin all his great works and designments by alterations or impositions of names, as the fittest means to imprint in the hearts of people a character and expectation of that which is to follow; we have thought good to withdraw and discontinue the divided names of England and Scotland out of our regal style and title, and to use in place of them the common and contracted name of Great Britany: not upon any vain-glory, whereof, we persuade ourselves, our actions do sufficiently free us in the judgment of all the world; and if any such humour should reign in us, it were better satisfied by length of style, and enumeration of kingdoms: but only as a fit signification of that which is already done, and a significant prefiguration of that which we further intend. For as in giving names to natural persons, it is used to impose them in infancy, and not to stay till fullness of growth; so it seemed to us not unseasonable to bring in further use this name at the first, and to proceed to the more substantial points of the union after, as fast and as far as the common good of both the realms should permit, especially considering the name of Britany was no coined or new-devised or affected name at pleasure, but the true and ancient name which God and time hath imposed, extant, and received in histories, in cards, and in ordinary speech and writing, where the whole island is meant to be denominate; so as it is not accompanied with so much as any strangeness in common speech. And although we never doubted, neither ever heard that any other presumed to doubt, but that the form and tenor of our



regal style and title, and the delineation of the same, did only and wholly belong more right appertain to our supreme and absolute prerogative to express, the same in such words or sort, as seemed good to our royal pleasure; yet because we were to have the advice and assent of our parliament concerning other points, of the union, we were pleased our said parliament should amongst the rest take in also the same into their consideration. But finding by the grave opinion of our judges, who are the interpreters of our laws, that, in case that alteration of style, which seemed to us but verbal, should be established and enacted by parliament, it might involve, by implication and consequence, not only a more present alteration, but also a further innovation than we any ways intended; or at least might be subject to some colourable scruple of such a perilous construction: we rested well satisfied to respite the same, as to require it by act of parliament. But being still resolved and fixed that it may conduce towards this happy end of the better uniting of the nations, we have thought good by the advice of our council to take the same upon us by our proclamation, being a course safe and free from any of the perils or scruples aforesaid. And therefore we do by these presents, publish, proclaim, and assume to ourselves from henceforth, according to our undoubted right, the style and title of King of Great Britany, France, and Ireland, and otherwise as followeth in our style formerly used. And we do hereby straitly charge and command our chancellor, and all such as have the custody of any of our seals; and all other our officers and subjects whatsoever, to whom it may in any wise appertain, that from henceforth in all commissions, patents, writs, process, grants, records, instruments, impressions, sermons, and all other writings and speeches whatsoever, wherein our style is used to be set forth or recited, that our said style, as is before by these presents declared and prescribed, be only used, and no other. And because we do but now declare that which in truth was before, our will and pleasure is, that in the computation of our reign, as to all writings or instruments hereafter to be made, the same computation be taken and made, as if we had taken upon us the style aforesaid immediately after the decease of our late dear sister. And we do notify to all our subjects, that if any person, of what degree or condition soever he be, shall impugn our said style, or derogate and detract from the same by any arguments, speeches, words, or otherwise; we shall proceed against him, as against an offender against our crown and dignity, and a disturber of the quiet and peace of our kingdom, according to the utmost severity of our laws in that behalf. Nevertheless our meaning is not, that where in any writ, pleading, or other record, writing, instrument of speech, it hath been used for mention to be made of England or the realm of England, or any other word or words derived from the same, and not of our whole and entire style and title; that therein any alteration at all be used by pretext of this our proclamation, which we intend to take place only where our whole style shall be recited, and not otherwise; and in the other cases the ancient form to be used and observed.

A S P E E C H

made by the King of Great Britany, France, and Ireland, touching the style and title of the said King, and the manner of the same to be used, and the computation of the said King's reign, as to all writings or instruments hereafter to be made, the same computation to be taken and made, as if the said King had taken upon him the style aforesaid immediately after the decease of our late dear sister. And we do notify to all our subjects, that if any person, of what degree or condition soever he be, shall impugn our said style, or derogate and detract from the same by any arguments, speeches, words, or otherwise; we shall proceed against him, as against an offender against our crown and dignity, and a disturber of the quiet and peace of our kingdom, according to the utmost severity of our laws in that behalf. Nevertheless our meaning is not, that where in any writ, pleading, or other record, writing, instrument of speech, it hath been used for mention to be made of England or the realm of England, or any other word or words derived from the same, and not of our whole and entire style and title; that therein any alteration at all be used by pretext of this our proclamation, which we intend to take place only where our whole style shall be recited, and not otherwise; and in the other cases the ancient form to be used and observed.



MONDAY NOVEMBER 11 1633  
S P E E C H  
SIR FRANCIS BACON, Knight,  
Chosen by the Commons to present

A PETITION touching PURVEYORS.

Delivered to his Majesty in the withdrawing-chamber at Whitehall,  
in the Parliament held 1<sup>o</sup> et 2<sup>o</sup> JACOBI, the first session.

IT is well known to your majesty (excellent king) that the emperors of Rome, for their better glory and ornament, did use in their titles the additions of the countries and nations where they had obtained victories: as *Germanicus, Britannicus*, and the like. But after all those names, as in the higher place, followed the name of *Pater Patriæ*, as the greatest name of all human honour immediately preceding that name of Augustus; whereby they took themselves to express some affinity that they had (in respect of their office) with divine honour. Your majesty might, with good reason, assume to yourself many of those other names; as *Germanicus, Saxonicus, Britannicus, Francicus, Danicus, Gothicus*, and others, as appertaining to you not by blood-shed (as they bare them) but by blood; your majesty's royal person being a noble confluence of streams and veins wherein the royal blood of many kingdoms of Europe are met and united. But no name is more worthy of you, nor may more truly be ascribed unto you, than that name of father of your people, which you bare and express not in the formality of your style, but in the real course of your government. We ought not to say unto you as was said to Julius Cæsar, *Quæ miremur, habemus; quæ laudamus, expectamus*: that we have already wherefore to admire you, and that now we expect somewhat for which to commend you: for we may (without suspicion of flattery) acknowledge, that we have found in your majesty great cause, both of admiration and commendation. For great is the admiration, wherewith you have possessed us since this parliament began in those two causes wherein we have had access unto you, and heard your voice: that of the return of Sir Francis Goodwin, and that of the union; whereby it seemeth unto us, the one of these being so subtle a question of law; and the other so high a cause of estate, that as the Scripture saith of the wisest king, *that his heart was as the sands of the sea*; which, though it be one of the largest and vastest bodies, yet it consisteth of the smallest moles and portions: so, I say, it appeareth unto us in these two examples, that God hath given your majesty a rare sufficiency, both to compass and fathom the greatest matters, and to discern the least. And for matter of praise and commendation, which chiefly belongeth to goodness, we cannot but with great thankfulness profess, that your majesty, within the circle of one year of your reign (*infra orbem anni vertentis*) hath endeavoured to unite your church, which was divided; to supply your nobility, which was diminished; and to ease your people in cases where they were burthened and oppressed.

In the last of these your high merits, that is, the ease and comfort of your people, doth fall out to be comprehended the message which I now bring unto your majesty, concerning the great grievance arising by the manifold abuses of purveyors, differing in some degree from most of the things wherein we deal and consult: for it is true that the knights, citizens, and burghesses, in parliament assembled, are a representative body of your commons and third estate; and in many matters, although we apply ourselves to perform the trust of those that chole us, yet it may be, we do speak much out of our own senses and discourses. But in this grievance, being of that nature wherunto the poor people is most exposed, and men of quality less, we shall most humbly desire your majesty to conceive, that your majesty doth not hear our opinions or senses, but the very groans and complaints themselves of your commons more truly and vively, than by representation. For there is no grievance in your kingdom so general, so continual, so sensible, and so bitter unto the common subject, as  
this



this whered we now speak; wherein it may please your majesty to vouchsafe me leave, first, to set forth unto you the dutiful and respective carriage of our proceeding; next, the substance of our petition; and thirdly, some reasons and motives which in all humbleness we do offer to your majesty's royal consideration or commiseration; we assuring ourselves that never king reigned that had better notions of head, and motions of heart, for the good and comfort of his loving subjects.

For the first; in the course of remedy which we desire, we pretend not, nor intend not, in any sort, to derogate from your majesty's prerogative, nor to touch, diminish, or question any of your majesty's regalities or rights. For we seek nothing but the reformation of abuses, and the execution of former laws whereunto we are born. And although it be no strange thing in parliament for new abuses to crave new remedies, yet nevertheless in these abuses (which if not in nature, yet in extremity and height of them, are most of them new) we content ourselves with the old laws: only we desire a confirmation and quickening of them in their execution; so far are we from any humour of innovation or incroachment.

As to the court of the green-cloth, ordained for the provision of your majesty's most honourable household, we hold it ancient, we hold it reverend. Other courts respect your politick person, but that respects your natural person. But yet, notwithstanding, most excellent king, to use that freedom which to subjects that pour out their griefs before so gracious a king, is allowable, we may very well alledge unto your majesty, a comparison or similitude used by one of the fathers in another matter, and not unfitly representing our case in this point: and it is of the leaves and roots of nettles; the leaves are venomous and stinging where they touch; the root is not so, but is without venom or malignity: and yet it is that root that bears and supports all the leaves.

To come now to the substance of our petition. It is no other, than by the benefit of your majesty's laws to be relieved of the abuses of purveyors; which abuses do naturally divide themselves into three sorts: the first, they take in kind that they ought not to take; the second, they take in quantity a far greater proportion than cometh to your majesty's use; the third, they take in an unlawful manner, in a manner (I say) directly and exprelly prohibited by divers laws.

For the first of these, I am a little to alter their name; for instead of takers, they become taxers; instead of taking provision for your majesty's service, they tax your people *ad redimendam vexationem*: imposing upon them, and extorting from them, divers sums of money, sometimes in gross, sometimes in the nature of stipends annually paid, *ne nocent*, to be freed and eased of their oppression. Again, they take trees, which by law they cannot do; timber-trees, which are the beauty, countenance, and shelter of mens houses; that men have long spared from their own purse and profit; that men esteem (for their use and delight) above ten times the value; that are a loss which men cannot repair or recover. These do they take, to the defacing and spoiling of your subjects mansions and dwellings, except they may be compounded with to their own appetites. And if a gentleman be too hard for them while he is at home, they will watch their time when there is but a bailiff or a servant remaining, and put the axe to the root of the tree, ere ever the master can stop it. Again, they use a strange and most unjust exaction, in causing the subjects to pay poundage of their own debts, due from your majesty unto them: so as a poor man, when he hath had his hay, or his wood, or his poultry (which perchance he was full loth to part with, and had for the provision of his own family, and not to put to sale) taken from him, and that not at a just price, but under the value, and cometh to receive his money, he shall have after the rate of twelve pence in the pound abated for poundage of his due payment, upon so hard conditions. Nay farther, they are grown to that extremity (as is affirmed, though it be scarce credible, save that in such persons all things are credible) that they will take double poundage, once when the debenture is made, and again the second time when the money is paid.

For the second point (most gracious sovereign) touching the quantity which they take, far above that which is answered to your majesty's use: they are the only multipliers in the world; they have the art of multiplication. For it is affirmed unto me by divers gentlemen of good report, and experience in these causes, as a matter which I may safely avouch before your majesty (to whom we owe all



truth, as well of information as subjection) that there is no pound profit which redoundeth to your majesty in this course, but induceth and begetteth three pound damage upon your subjects, besides the discontentment. And to the end they may make their spoil more securely, what do they? Whereas divers statutes do strictly provide, that whatsoever they take, shall be registered and attested, to the end, that by making a collation of that which is taken from the country, and that which is answered above, their deceits might appear; they, to the end to obscure their deceits, utterly omit the observation of this, which the law prescribeth.

And therefore to descend, if it may please your majesty, to the third sort of abuse, which is of the unlawful manner of their taking, whereof this omission is a branch; and it is so manifold, as it rather asketh an enumeration of some of the particulars, than a prosecution of all. For their price: by law they ought to take as they can agree with the subject; by abuse they take at an imposed and enforced price: by law they ought to make but one apprimement by neighbours in the country; by abuse they make a second apprimement at the court-gate; and when the subject's cattle come up many miles lean, and out of plight, by reason of their great travel, then they prize them a-new at an abated price: by law they ought to take between sun and sun; by abuse they take by twilight, and in the night-time, a time well chosen for malefactors: by law they ought not to take in the high-ways (a place by your majesty's high prerogative protected, and by statute by special words excepted) by abuse they take in the ways, in contempt of your majesty's prerogative and laws: by law they ought to shew their commission, and the form of commission is by law set down; the commissions they bring down, are against the law, and because they knew so much, they will not shew them. A number of other particulars there are, whereof as I have given your majesty a taste, so the chief of them upon deliberate advice are set down in writing by the labour of some committees, and approbation of the whole house, more particularly and lively than I can express them, myself having them at the second hand by reason of my abode above. But this writing is a collection of theirs who dwell amongst the abuses of these offenders, and the complaints of the people; and therefore must needs have a more perfect understanding of all the circumstances of them.

It remaineth only that I use a few words, the rather to move your majesty in this cause: a few words, I say a very few; for neither need so great enormities any aggravating, neither needeth so great grace, as useth of itself to flow from your majesty's princely goodness, any artificial persuading. There be two things only which I think good to set before your majesty; the one the example of your most noble progenitors kings of this realm, who from the first king that endowed this kingdom with the great charters of their liberties, until the last, all save one, (who as he was singular in many excellent things, so I would he had not been alone in this) have ordained, every one of them in their several reigns, some laws or law against this kind of offenders; and especially the example of one of them, that king, who for his greatness, wisdom, glory, and union of several kingdoms, resembleth your majesty most, both in virtue and fortune, king Edward III. who, in his time only, made ten several laws against this mischief. The second is the example of God himself; who hath said and pronounced, *That he will not hold him guiltless that taketh his name in vain*. For all these great misdemeanors are committed in and under your majesty's name: and therefore we hope your majesty will hold them twice guilty that commit these offences; once for the oppressing of the people, and once more for doing it under the colour and abuse of your majesty's most dreaded and beloved name. So then I will conclude with the saying of Pindarus, *Optima res aqua*; not for the excellency, but for the common use of it; and so contrariwise the matter of abuse of purveyance (if it be not the most heinous abuse) yet certainly it is the most common and general abuse of all others in this kingdom.

It setteth, that, according to the command laid upon me, I do in all humbleness present this writing to your majesty's royal hands, with most humble petition on the behalf of the commons, that as your majesty hath been pleased to vouchsafe your gracious audience to hear me speak, so you would be pleased to enlarge your patience to hear this writing read, which is more material.



# DISCOURSE

A BRIEF

OF THE

## HAPPY UNION

Of the Kingdoms of

## ENGLAND and SCOTLAND.

Dedicated in private to his MAJESTY.

**I** Do not find it strange, excellent king, that when Heraclitus (he that was surnamed the obscure) had set forth a certain book which is not now extant, many men took it for a discourse of nature, and many others took it for a treatise of policy. For there is a great affinity and consent between the rules of nature, and the true rules of policy: the one being nothing else but an order in the government of the world; and the other an order in the government of an estate. And therefore the education and erudition of the kings of Persia was in a science which was termed by a name then of great reverence, but now degenerate and taken in the ill part. For the Persian magick, which was the secret literature of their kings, was an application of the contemplations and observations of nature unto a sense politick; taking the fundamental laws of nature, and the branches and passages of them, as an original or first model, whence to take and describe a copy and imitation for government.

After this manner the foresaid instructors set before their kings the examples of the celestial bodies, the sun, the moon, and the rest, which have great glory and veneration, but no rest or intermission; being in a perpetual office of motion, for the cherishing (in turn and in course) of inferior bodies: expressing likewise the true manner of the motions of government, which though they ought to be swift and rapid in respect of dispatch and occasions, yet are they to be constant and regular, without wavering or confusion.

So did they represent unto them how the heavens do not enrich themselves by the earth and the seas, nor keep no dead stock, nor untouched treasures of that they draw to them from below; but whatsoever moisture they do levy and take from both elements in vapours, they do spend and turn back again in showers, only holding and storing them up for a time, to the end to issue and distribute them in season.

But chiefly, they did express and expound unto them that fundamental law of nature, whereby all things, do subsist and are preserved; which is, that every thing in nature, although it hath its private and particular affection and appetite, and doth follow and pursue the same in small moments, and when it is free and delivered from more general and common respects; yet, nevertheless, when there is question or case for sustaining of the more general, they forsake their own particularities, and attend and conspire to uphold the publick.

So we see the iron in small quantity will ascend and approach to the loadstone, upon a particular sympathy: but if it be any quantity of moment, it leaveth its appetite of amity to the loadstone, and, like a good patrixt falleth to the earth, which is the place and region of massy bodies.

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## UNION OF ENGLAND AND SCOTLAND.

So again the water, and other like bodies, do fall towards the centre of the earth, which is (as was said) their region or country: and yet we see nothing more usual in all water-works and engines, than that the water (rather than to suffer any distraction or disunion in nature) will ascend, forsaking the love to its own region or country, and applying itself to the body next adjoining.

But it were too long a digression to proceed to more examples of this kind. Your majesty yourself did fall upon a passage of this nature in your gracious speech of thanks unto your council, when acknowledging princely their vigilancies and well deservings, it pleased you to note, that it was a success and event above the course of nature, to have so great change with so great a quiet: forasmuch as sudden mutations, as well in state as in nature, are rarely without violence and perturbation: so as still I conclude there is (as was said) a congruity between the principles of nature and policy. And lest that instance may seem to oppose to this assertion, I may even in that particular, with your majesty's favour, offer unto you a type or pattern in nature, much resembling this event in your state; namely, earthquakes, which many of them bring ever much terror and wonder, but no actual hurt; the earth trembling for a moment, and suddenly stabilishing in perfect quiet as it was before.

This knowledge then of making the government of the world a mirror for the government of a state, being a wisdom almost lost (whereof the reason I take to be because of the difficulty for one man to embrace both philosophies) I have thought good to make some proof (as far as my weakness and the strains of time will suffer) to revive in the handling of one particular, wherewith now I most humbly present your majesty: for surely, as hath been said, it is a form of discourse anciently used towards kings; and to what king should it be more proper than to a king that is studious to conjoin contemplative virtue, and active virtue together?

Your majesty is the first king that had the honour to be *lapis angularis*, to unite these two mighty and warlike nations of England and Scotland under one sovereignty and monarchy. It doth not appear by the records and memoirs of any true history, or scarcely by the fiction and pleasure of any fabulous narration or tradition, that ever, of any antiquity, this island of Great Britain was united under one king before this day. And yet there be no mountains, nor races of hills, there be no seas or great rivers, there is no diversity of tongue or language that hath invited or provoked this ancient separation or divorce. The lot of Spain was to have the several kingdoms of that continent (Portugal only excepted) to be united in an age not long past; and now in our age that of Portugal also, which was the last that held out, to be incorporate with the rest. The lot of France hath been, much about the same time, likewise, to have re-annexed unto that crown the several dutchies and portions which were in former times dismembered. The lot of this island is the last reserved for your majesty's happy times, by the special providence and favour of God, who hath brought your majesty to this happy conjunction with the great consent of hearts, and in the strength of your years, and in the maturity of your experience. It resteth but that (as I promised) I set before your majesty's princely consideration, the grounds of nature touching the union and commixture of bodies, and the correspondence which they have with the grounds of policy in the conjunction of states and kingdoms.

First, therefore, that position, *Vis unita fortior*, being one of the common notions of the mind, needeth not much to be induced or illustrated.

We see the sun when he entereth, and while he continueth under the sign of Leo, causeth more vehement heats than when he is in Cancer, what time his beams are nevertheless more perpendicular. The reason whereof, in great part, hath been truly ascribed to the conjunction and coradiation, in that place of heaven, of the sun with the four stars of the first magnitude, Sirius, Canicula, Cor Leonis, and Cauda Leonis.

So the moon likewise, by ancient tradition, while she is in the same sign of Leo, is said to be at the heart, which is not for any affinity which that place of  
heaven



heaven can have with that part of man's body, but only because the moon is then, by reason of the conjunction and nearness with the stars aforementioned, in greatest strength of influence, and so worketh upon that part in inferior bodies, which is most vital and principal.

So we see waters and liquors, in small quantity, do easily putrify and corrupt; but in large quantity subsist long, by reason of the strength they receive by union.

So in earthquakes, the more general do little hurt, by reason of the united weight which they offer to subvert; but narrow and particular earthquakes have many times overturned whole towns and cities.

So then this point touching the force of union is evident: and therefore it is more fit to speak of the manner of union; wherein again it will not be pertinent to handle one kind of union, which is union by victory, when one body doth merely subdue another, and converteth the same into its own nature, extinguishing and expelling what part soever of it, it cannot overcome. As when the fire converteth the wood into fire, purging away the smoke and the ashes as unapt matter to inflame: or when the body of a living creature doth convert and assimilate food and nourishment, purging and expelling whatsoever it cannot convert. For these representations do answer in matter of policy to union of countries by conquest, where the conquering state doth extinguish, extirpate, and expulse any part of the state conquered, which it findeth so contrary as it cannot alter and convert it. And therefore, leaving violent unions, we will consider only of natural unions.

The difference is excellent which the best observers in nature do take between *compositio* and *mixtio*, putting together, and mingling: the one being but a conjunction of bodies in place, the other in quality and consent: the one the mother of sedition and alteration, the other of peace and continuance: the one rather a confusion than an union, the other properly an union. Therefore we see those bodies, which they call *imperfecte mixta*, last not, but are speedily dissolved. For take for example snow or froth, which are compositions of air and water, and in them you may behold how easily they sever and dissolve, the water closing together and excluding the air.

So those three bodies which the alchemists do so much celebrate as the three principles of things; that is to say, earth, water, and oil (which it pleaseth them to term salt, mercury, and sulphur) we see, if they be united only by composition or putting together, how weakly and rudely they do incorporate: for water and earth make but an imperfect slime; and if they be forced together by agitation, yet upon a little settling, the earth resideth in the bottom. So water and oil, though by agitation it be brought into an ointment, yet after a little settling the oil will float on the top. So as such imperfect mixtures continue no longer than they are forced; and still in the end the worthiest getteth above.

But otherwise it is of perfect mixtures. For we see these three bodies, of earth, water, and oil, when they are joined in a vegetable or mineral, they are so united, as without great subtlety of art and force of extraction, they cannot be separated and reduced into the same simple bodies again. So as the difference between *compositio* and *mixtio* clearly set down is this; that *compositio* is the joining or putting together of bodies without a new form: and *mixtio* is the joining or putting together of bodies under a new form: for the new form is *commune vinculum*, and without that the old forms will be at strife and discord.

Now to reflect this light of nature upon matter of estate; there hath been put in practice in government these two several kinds of policy in uniting and joining of states and kingdoms; the one to retain the ancient form still severed, and only conjoined in sovereignty; the other to superinduce a new form agreeable and convenient to the entire estate. The former of these hath been more usual, and is more easy; but the latter is more happy. For if a man do attentively review histories of all nations, and judge truly thereupon, he will make this conclusion, that there was never any states that were good commixtures but the Romans; which because it was the best state of the world, and is the best example of this point, we will chiefly insist thereupon.



In the antiquities of Rome Virgil bringeth in Jupiter by way of oracle or prediction speaking of the mixture of the Trojans and the Italians.

*Sermonem Ausonii patrum moreſque tenebunt :*

*Utiq; eſt, nomen erit : commixti corpore tantum,*

*Subſident Teucri ; morem, ritusque ſacrorum*

*Adſiciam : faciuntque omnes uno ore Latinos.*

*Hinc genus, Ausonio miſtum quod ſanguine ſurget,*

*Supra homines, ſupra ire Deos pietate cidebis.*

Æn. xii. 834.

Wherein Jupiter maketh a kind of partition or diſtribution : that Italy ſhould give the language and the laws ; Troy ſhould give a mixture of men, and ſome religious rites ; and both people ſhould meet in one name of Latins.

Soon after the foundation of the city of Rome, the people of the Romans and the Sabines mingled upon equal terms : wherein the interchange went ſo even, that (as Livy noteth) the one nation gave the name to the place, the other to the people. For Rome continued the name, but the people were called Quirites, which was the Sabine word, derived of Cures the country of Tatus.

But that which is chiefly to be noted in the whole continuance of the Roman government ; they were ſo liberal of their naturalizations, as in effect they made perpetual mixtures. For the manner was to grant the ſame, not only to particular perſons, but to families and lineages ; and not only ſo, but to whole cities and countries. So as in the end it came to that, that Rome was *communis patria*, as ſome of the civilians call it.

So we read of St. Paul, after he had been beaten with rods, and thereupon charged the officer with the violation of the privilege of a citizen of Rome ; the captain ſaid to him, *Art thou then a Roman ? That privilege hath coſt me dear.* To whom St. Paul replied, *But I was ſo born ;* and yet, in another place, St. Paul profeſſeth himſelf, that he was a Jew by tribe : ſo as it is manifeſt that ſome of his anceſtors were naturalized ; and ſo it was conveyed to him and their other deſcendents.

So we read, that it was one of the firſt deſpites that was done to Julius Cæſar, that whereas he had obtained naturalization for a city in Gaul, one of the city was beaten with rods of the conſul Marcellus.

So we read in Tacitus, that in the emperor Claudius's time, the nation of Gaul (that part which is called Comata, the wilder part) were ſuitors to be made capable of the honour of being ſenators and officers of Rome. His words are theſe ; *Cum de ſupplendo ſenatu ageretur primorſque Galliae, quae Comata appellatur, foedera et civitatem Romanam pridem aſſecuti, jus adſiſcendorum in urbe honorum expeterent ; multus ea ſuper re variuſque rumor, et ſtudiis diverſis, apud principem certabatur.* And in the end, after long debate, it was ruled they ſhould be admitted.

So likewiſe, the authority of Nicholas Machiavel ſeemeth not to be contemned, who enquiring the cauſes of the growth of the Roman empire, doth give judgment ; there was not one greater than this, that the ſtate did ſo eaſily compound and incorporate with ſtrangers.

It is true, that moſt eſtates and kingdoms have taken the other courſe ; of which this effect hath followed, that the addition of further empire and territory hath been rather matter of burthen, than matter of ſtrength unto them : yea, and farther it hath kept alive the ſeeds and roots of revolts and rebellions for many ages ; as we may ſee in a freſh and notable example of the kingdom of Arragon : which, though it were united to Caſtile by marriage, and not by conqueſt ; and ſo deſcended in hereditary union by the ſpace of more than an hundred years ; yet becauſe it was continued in a divided government, and not well incorporated and cemented with the other crowns, entered into a rebellion upon point of their *fueros*, or liberties, now of very late years.

Now to ſpeak briefly of the ſeveral parts of that form, whereby ſtates and kingdoms are perfectly united, they are (beſides the ſovereignty itſelf) four in number ; union in name, union in language, union in laws, union in employments.

For



For name, though it seem but a superficial and outward matter, yet it carrieth much impression and enchantment: the general and common name of Grecia made the Greeks always apt to unite (though otherwise full of divisions amongst themselves) against other nations whom they called barbarous. The Helvetian name is no small band to knit together their leagues and confederacies the faster. The common name of Spain (no doubt) hath been a special means of the better union and conglutination of the several kingdoms of Castile, Arragon, Granada, Navarre, Valencia, Catalonia, and the rest, comprehending also now lately Portugal.

For language, it is not needful to insist upon it; because both your majesty's kingdoms are of one language, though of several dialects; and the difference is so small between them, as promiseth rather an enriching of one language than a continuance of two.

For laws, which are the principal sinews of government, they be of three natures; *jura*, which I will term freedoms or abilities, *leges*, and *mores*. For abilities and freedoms, they were amongst the Romans of four kinds, or rather degrees. *Jus connubii*, *jus civitatis*, *jus suffragii*, and *jus petitionis* or *honorum*. *Jus connubii* is a thing in these times out of use: for marriage is open between all diversities of nations. *Jus civitatis* answereth to that we call denization or naturalization. *Jus suffragii* answereth to the voice in parliament. *Jus petitionis* answereth to place in council or office. And the Romans did many times sever these freedoms; granting *Jus connubii*, *sine civitate*, and *civitatem*, *sine suffragio*, and *suffragium*, *sine jure petitionis*, which was commonly with them the last.

For those we called *leges*, it is a matter of curiosity and inconvenience, to seek either to extirpate all particular customs, or to draw all subjects to one place of resort of judicature and session. It sufficeth there be an uniformity in the principal and fundamental laws, both ecclesiastical and civil: for in this point the rule holdeth which was pronounced by an ancient father, touching the diversity of rites in the church; for finding the vesture of the queen in the palm (which did prefigure the church) was of divers colours; and finding again that Christ's coat was without a seam, he concluded well, *in veste varietas fit, scissura non fit*.

For manners; a consent in them is to be sought industriously, but not to be enforced: for nothing amongst people breedeth so much pertinacy in holding their customs, as sudden and violent offer to remove them.

And as for employments, it is no more, but an indifferent hand, and execution of that verse: *Tros, Tyrsiusque mihi nullo discrimine agetur*.

There remaineth only to remember out of the grounds of nature the two conditions of perfect mixture; whereof the former is time: for the natural philosophers say well, that *compositio* is *opus hominis*, and *mixtio* *opus naturae*. For it is the duty of man to make a fit application of bodies together: but the perfect fermentation and incorporation of them must be left to time and nature; and unnatural halting thereof doth disturb the work, and not dispatch it.

So we see, after the graft is put into the stock and bound, it must be left to time and nature to make that *continuum*, which at the first was but *contiguum*. And it is not any continual pressing or thrusting together that will prevent nature's season, but rather hinder it. And so in liquors, those commixtures which are at the first troubled, grow after clear and settled by the benefit of rest and time.

The second condition is, that the greater draw the less. So we see when two lights do meet, the greater doth darken and dim the less. And when a smaller river runneth into a greater, it loseth both its name and stream. And hereof, to conclude, we see an excellent example in the kingdoms of Judah and Israel. The kingdom of Judah contained two tribes; the kingdom of Israel contained ten. King David reigned over Judah for certain years; and, after the death of Ishobotheth, the son of Saul, obtained likewise the kingdom of Israel. This union continued in him, and likewise in his son Solomon, by the space of seventy years, at



## UNION OF ENGLAND AND SCOTLAND.

at least, between them both : but yet, because the feat of the kingdom was kept still in Judah, and so the less sought to draw the greater : upon the first occasion offered, the kingdoms brake again, and so continued ever after.

Thus having in all humbleness made oblation to your majesty of these simple fruits of my devotion and studies, I do wish, and do wish it not in the nature of an impossibility (to my apprehension) that this happy union of your majesty's two kingdoms of England and Scotland, may be in as good an hour, and under the like divine providence, as that was between the Romans and the Sabines.





## ARTICLES or CONSIDERATIONS

Touching the

UNION of the KINGDOMS  
OF  
ENGLAND and SCOTLAND.

Collected and dispersed for His Majesty's better service.

YOUR majesty, being, I doubt not, directed and conducted by a better oracle than that which was given for light to Æneas in his peregrination (*Antiquam exquirite matrem*) hath a royal, and indeed an heroical desire to reduce these two kingdoms of England and Scotland into the unity of their ancient mother kingdom of Britain. Wherein as I would gladly applaud unto your majesty, or sing aloud that hymn or anthem, *Sic iur ad astra*; so in a more soft and submissive voice, I must necessarily remember unto your majesty that warning or caveat, *Ardua quae pulchra*: it is an action that requireth, yea, and needeth much, not only of your majesty's wisdom, but of your felicity. In this argument I presumed at your majesty's first entrance to write a few lines, indeed scholastically and speculatively, and not actively or politically, as I held it fit for me at that time; when neither your majesty was in that your desire declared, nor myself in that service used or trusted. But now that both your majesty hath opened your desire and purpose with much admiration, even of those who give it not so full an approbation, and that myself was by the commons graced with the first vote of all the commons selected for that cause; not in any estimation of my ability (for therein so wide an assembly could not be so much deceived) but in an acknowledgment of my extreme labours and integrity; in that business I thought myself every way bound, both in duty to your majesty, and in trust to that house of parliament, and in consent to the matter itself, and in conformity to mine own travels and beginnings, not to neglect any pains that may tend to the furtherance of so excellent a work; wherein I will endeavour that that which I shall set down be *nihil minus quam verba*: for length and ornament of speech are to be used for persuasion of multitudes, and not for information of kings; especially such a king as is the only instance that ever I knew to make a man of Plato's opinion, "that all knowledge is but remembrance, and that the mind of a man knoweth all things, and demandeth only to have her own notions excited and awaked:" which your majesty's rare and indeed singular gift and faculty of swift apprehension, and infinite expansion or multiplication of another man's knowledge by your own, as I have often observed, so I did extremely admire in Goodwin's cause, being a matter full of secrets and mysteries of our laws, merely new unto you, and quite out of the path of your education, reading, and conference: wherein, nevertheless, upon a spark of light given, your majesty took in so dextrously and profoundly, as if you had been indeed *anima legis*, not only in execution, but in understanding: the remembrance whereof, as it will never be out of my mind, so it will always be a warning to me to seek rather to excite your judgment briefly, than to inform it tediously; and if in a matter of that nature, how much more in this, wherein your princely cogitations have wrought themselves, and been convertant, and wherein the principal light proceeded from yourself.



## UNION OF ENGLAND AND SCOTLAND.

And therefore my purpose is only to break this matter of the union into certain short articles and questions, and to make a certain kind of anatomy or analysis of the parts and members thereof: not that I am of opinion that all the questions which I now shall open, were fit to be in the consultation of the commissioners propounded. For I hold nothing so great an enemy to good resolution, as the making of too many questions; especially in assemblies which consist of many. For princes, for avoiding of distraction, must take many things by way of admittance; and if questions must be made of them, rather to suffer them to arise from others, than to grace them and authorize them as propounded from themselves. But unto your majesty's private consideration, to whom it may better sort with me rather to speak as a remembrancer than as a counsellor, I have thought good to lay before you all the branches, lineaments, and degrees of this union, that upon the view and consideration of them and their circumstances, your majesty may the more clearly discern, and more readily call to mind which of them is to be embraced, and which to be rejected: and of these, which are to be accepted, which of them is presently to be proceeded in, and which to be put over to farther time. And again, which of them shall require authority of parliament, and which are fitter to be effected by your majesty's royal power and prerogative, or by other policies or means; and lastly, which of them is liker to pass with difficulty and contradiction, and which with more facility and smoothness.

First, therefore, to begin with that question, that, I suppose, will be out of question.

**Statutes.** Whether it be not meet, that the statutes, which were made touching Scotland or the Scottish nation, while the kingdoms stood severed, be repealed? It is true, there is a diversity in these; for some of these laws, consider Scotland as an enemy's country; other laws consider it as a foreign country only: as for example; the law of Rich. II. anno 7. which prohibiteth all armour or victual to be carried to Scotland; and the law of 7 of K. H. VII. that enacteth all the Scottish men to depart the realm within a time prefixed. Both these laws, and some others, respect Scotland as a country of hostility: but the law of 21 of Edw. IV. that endueth Berwick with the liberty of a staple, where, all Scottish merchandizes should resort that should be uttered for England, and likewise all English merchandizes that should be uttered for Scotland; this law, beholdeth Scotland only as a foreign nation; and not so much neither; for there have been erected staples in towns of England for some commodities, with an exclusion and restriction of other parts of England.

But this is a matter of the least difficulty; your majesty shall have a calendar made of the laws, and a brief of the effect; and so you may judge of them: and the like or reciproque is to be done by Scotland for such laws as they have concerning England and the English nation.

**Laws, customs, commissions, officers, garrisons, and the like,** are to be put down, discontinued or taken away upon the borders of both realms?

To this point, because I am not acquainted with the orders of the marches, borders or I can say the less.

Herein falleth that question, whether that the tenants, who hold their tenants rights in a greater freedom and exemption, in consideration of their service upon the borders, and that the countries themselves, which are in the same respect discharged of subsidies and taxes, should not now be brought to be in one degree with other tenants and countries; *nam cessante causa, tollitur effectus*? Wherein, in my opinion, some time would be given; *quia adhuc eorum messis in herba est*; but some present ordinance would be made to take effect at a future time; considering it is one of the greatest points and marks of the division of the kingdoms. And because reason doth dictate, that where the principal solution of continuity was, there the healing and consolidating plaster should be chiefly applied; there would be some farther device for the utter and perpetual confounding of those imaginary bounds (as your majesty termeth them;) and therefore it would be considered, whether it were not convenient to plant and erect at Carlisle



# UNION OF ENGLAND AND SCOTLAND.

635

lille or Berwick some council or court of justice, the jurisdiction whereof might extend part into England and part into Scotland, with a commission not to proceed precisely, or merely according to the laws and customs either of England or Scotland, but mixtly, according to instructions by your majesty to be set down, after the imitation and precedent of the council of the marches here in England, erected upon the union of Wales?

The third question is that which many will make a great question of, though perhaps your majesty will make no question of it; and that is, whether your majesty should not make a stop or stand here, and not to proceed to any farther union, contenting yourself with the two former articles or points.

For it will be said, that we are now well (thanks be to God, and your majesty) and the state of neither kingdom is to be repented of; and that it is true which Hippocrates saith, that *Sana corpora difficile mediciones ferunt*, it is better to usage make alterations in sick bodies than in sound. The consideration of which point it will rest upon these two branches: what inconveniences will ensue with time, if the realms stand as they are divided, which are yet not found nor sprung up. For it may be the sweetness of your majesty's first entrance, and the great benefit that both nations have felt thereby, hath covered many inconveniences, which, nevertheless, be your majesty's government never so gracious and politic, continuance of time and the accidents of time may breed and discover, if the kingdoms stand divided.

The second branch is; allow no manifest or important peril or inconvenience should ensue of the continuing of the kingdoms divided, yet on the other side, whether that upon the farther uniting of them, there be not like to follow that addition and increase of wealth and reputation, as is worthy your majesty's virtues and fortune, to be the author and founder of, for the advancement and exaltation of your majesty's royal posterity in time to come? But admitting that your majesty should proceed to this more perfect and entire union, wherein your majesty may say *Magis opus movetur*; to enter into the parts and degrees thereof, I think fit first to set down, as in a brief table, in what points the nations stand now at this present time already united, and in what points yet already severed and divided, that your majesty may the better see what is done, and what is to be done; and how that which is to be done is to be inferred upon that which is done.

The points wherein the nations stand already united are:

In sovereignty.

In the relative thereof, which is subjection.

In religion.

In consent.

In language.

And now lastly, by the peace by your majesty concluded with Spain, in leagues and confederacies; for now both nations have the same friends and the same enemies.

Yet notwithstanding there is none of the six points, wherein the union is perfect and consummate; but every of them hath some scruple or rather grain of separation enwrapped and included in them.

For the sovereignty, the union is absolute in your majesty and your generation; Sovereignty, but if it should so be (which God of his infinite mercy defend) that your issue should fail, then the descent of both realms doth resort to the several lines of the several bloods royal.

For subjection, I take the law of England to be clear (what the law of Scotland is I know not) that all Scotsmen from the very instant of your majesty's reign begin, are become denizens, and the *post-nati* are naturalized subjects of England for the time forwards: for by our laws none can be an alien but he that is of another allegiance, than our sovereign lord the king's: for there be but two sorts of aliens, whereof we find mention in our law, an alien ami, and an alien enemy; whereof the former is a subject of a state in amity with the king, and the latter a subject of a state in hostility: but whether he be one or other, it is an essential difference unto the definition of an alien, if he be not of the king's

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## UNION OF ENGLAND AND SCOTLAND.

allegiance; as we see it evidently in the precedent of Ireland, who, since they were subjects to the crown of England, have ever been inheritable and capable as natural subjects; and yet not by any statute or act of parliament, but merely by the common-law, and the reason thereof. So as there is no doubt, that every subject of Scotland was, and is in like plight and degree, since your majesty's coming in, as if your majesty had granted particularly your letters of denization or naturalization to every of them, and the *post-nati* wholly natural. But then on the other side, for the time backwards, and for those that were *ante-nati*, the blood is not by law naturalized, so as they cannot take it by descent from their ancestors without act of parliament: and therefore in this point there is a defect in the union of subjection.

Religion,  
church  
govern-  
ment.

For matter of religion, the union is perfect in points of doctrine; but in matter of discipline and government it is imperfect.

Centi-  
cent, bor-  
ders.

For the continent, it is true there are no natural boundaries of mountains or seas, or navigable rivers; but yet there are badges and memorials of borders; of which point I have spoken before.

Lan-  
guage, di-  
alect.

For the language, it is true the nations are *unius labii*, and have not the first curse of disunion, which was confusion of tongues, whereby one understood not another. But yet the dialect is differing, and it remaineth a kind of mark of distinction. But for that, *tempori permittendum*, it is to be left to time. For considering that both languages do concur in the principal office and duty of a language, which is to make a man's self understood: for the rest, it is rather to be accounted (as was said) a diversity of dialect than of language: and, as I said in my first writing, it is like to bring forth the enriching of one language, by compounding and taking in the proper and significant words of either tongue, rather than a continuance of two languages.

Leagues,  
confede-  
racies,  
treaties.

For leagues and confederacies, it is true, that neither nation is now in hostility with any state, wherewith the other nation is in amity: but yet so, as the leagues and treaties have been concluded with either nation respectively, and not with both jointly; which may contain some diversity of articles of strictness of amity with one more than with the other.

But many of these matters may perhaps be of that kind, as may fall within that rule, *In veste varietas sit, scissura non sit*.

Now to descend to the particular points wherein the realms stand severed and divided, over and besides the former six points of separation, which I have noted and placed as defects or abatements of the six points of the union, and therefore shall not need to be repeated: the points, I say, yet remaining I will divide into external and internal.

External  
points of  
the sepa-  
ration and  
union.

The external points therefore of the separation are four.

1. The several crowns, I mean the ceremonial and material crowns.
2. The second is the several names, styles, or appellations.
3. The third is the several prints of the seals.
4. The fourth is the several stamps or marks of the coins or moneys.

It is true, that the external are in some respect and parts much mingled and interlaced with considerations internal; and that they may be as effectual to the true union, which must be the work of time, as the internal, because they are operative upon the conceits and opinions of the people; the uniting of whose hearts and affections is the life and true end of this work.

The cere-  
monial or  
material  
crowns.

For the ceremonial crowns, the question will be, whether there shall be framed one new imperial crown of Britain to be used for the times to come? Also, admitting that to be thought convenient, whether in the frame thereof there shall not be some reference to the crowns of Ireland and France?

Also whether your majesty should repeat or iterate your own coronation and your Queen's, or only ordain that such new crown shall be used by your posterity hereafter?

The difficulties will be in the conceit of some inequality, whereby the realm of Scotland may be thought to be made an accession unto the realm of England. But that resteth in some circumstances; for the compounding of the two crowns is equal; the calling of the new crown the crown of Britain is equal. Only



the place of coronation, if it shall be at Westminster, which is the ancient, august, and sacred place for the kings of England, may seem to make an inequality. And again, if the crown of Scotland be discontinued, then that ceremony, which I hear is used in the parliament of Scotland in the absence of the kings, to have the crowns carried in solemnity, must likewise cease.

For the name, the main question is, whether the contracted name of Britain shall be by your majesty used, or the divided names of England and Scotland? The style and names. Admitting there shall be an alteration, then the case will require these inferior

questions:

First, whether the name of Britain shall only be used in your majesty's style, where the entire style is recited; and in all other forms the divided names to remain, both of the realms and of the people? or otherwise, that the very divided names of realms and people shall likewise be changed or turned into special or subdivided names of the general name; that is to say, for example, whether your majesty in your style shall denominate yourself king of Britain, France, and Ireland, *etc.* and yet, nevertheless, in any commission, writ, or otherwise, where your majesty mentions England or Scotland, you shall retain the ancient names, as *secundum consuetudinem regni nostri Angliæ*; or whether those divided names shall be for ever lost and taken away, and turned into the subdivisions of South-Britain and North-Britain, and the people to be South-Britons and North-Britons? And so in the example aforesaid, the tenour of the like clause to run *secundum consuetudinem Britanniae australis*.

Also, if the former of these shall be thought convenient, whether it were not better for your majesty to take that alteration of style upon you by proclamation, as Edward the third did the style of France, than to have it enacted by parliament?

Also, in the alteration of the style, whether it were not better to transpose the kingdom of Ireland, and put it immediately after Britain, and so place the islands together; and the kingdom of France, being upon the continent, last; in regard that these islands of the western ocean seem by nature and providence an entire empire in themselves; and also, that there was never king of England so entirely possessor of Ireland as your majesty is: so as your style to run king of Britain, Ireland, and the islands adjacent, and of France, *etc.*

The difficulties in this have been already thoroughly beaten over; but they gather but to two heads.

The one, point of honour and love to the former names.

The other, doubt, lest the alteration of the name may induce and involve an alteration of the laws and policies of the kingdom; both which, if your majesty shall assume the style by proclamation, and not by parliament, are in themselves satisfied: for then the usual names must needs remain in writs and records, the forms whereof cannot be altered but by act of parliament, and so the point of honour satisfied. And again, your proclamation altereth no law, and so the scruple of a tacit or implied alteration of laws likewise satisfied. But then it may be considered, whether it were not a form of the greatest honour, if the parliament, though they did not enact it, yet should become suitors and petitioners to your majesty to assume it?

For the seals, that there should be but one great seal of Britain, and one chancellor, and that there should only be a seal in Scotland for processes and ordinary justice; and that all patents of grants of lands or otherwise, as well in Scotland as in England, should pass under the great seal here, kept about your person; it is an alteration internal, whereof I do not now speak.

But the question in this place is, whether the great seals of England and Scotland should not be changed into one and the same form of image and superscription of Britain, which, nevertheless, is requisite should be, with some one plain or manifest alteration, lest there be a buzz, and suspect, that grants of things in England may be passed by the seal of Scotland, or *e converso*?

Also, whether this alteration of form may not be done without act of parliament, as the great seals have used to be heretofore changed as to their impressions?



For the moneys, as to the real and internal consideration thereof, the question will be, whether your majesty should not continue two mints? which, the distance of territory considered, I suppose will be of necessity.

Secondly, how the standards (if it be not already done, as I hear some doubt made of it in popular rumour) may be reduced into an exact proportion for the time to come; and likewise the computation, tale, or valuation to be made exact for the moneys already beaten?

The standards and stamps, moneys.

That done, the last question is (which is only proper to this place) whether the stamp or the image and superscription of Britain for the time forwards should not be made the self-same in both places, without any difference at all? A matter also which may be done, as our law is, by your majesty's prerogative without act of parliament.

These points are points of demonstration, *ad faciendum populum*, but so much the more they go to the root of your majesty's intention, which is to imprint and inculcate into the hearts and heads of the people, that they are one people and one nation.

In this kind also I have heard it pass abroad in speech of the erection of some new order of knighthood, with a reference to the union, and an oath appropriate thereunto, which is a point likewise deserves a consideration. So much for the external points.

Internal points of union.

The internal points of separation are as followeth.

1. Several parliaments.
2. Several councils of state.
3. Several officers of the crown.
4. Several nobilities.
5. Several laws.
6. Several courts of justice, trials, and processes.
7. Several receipts and finances.
8. Several admiralities and merchandizings.
9. Several freedoms and liberties.
10. Several taxes and imposts.

As touching the several states ecclesiastical, and the several mints and standards, and the several articles and treaties of intercourse with foreign nations, I touched them before.

In these points of the strait and more inward union, there will intervene one principal difficulty and impediment, growing from that root, which Aristotle in his *Politicks* maketh to be the root of all division and dissension in commonwealths, and that is equality and inequality. For the realm of Scotland is now an ancient and noble realm, substantive of itself. But when this island shall be made Britain, then Scotland is no more to be considered as Scotland, but as a part of Britain; no more than England is to be considered as England, but as a part likewise of Britain; and consequently neither of these are to be considered as things entire of themselves, but in the proportion that they bear to the whole. And therefore let us imagine (*Nam id mente possumus, quod actu non possumus*) that Britain had never been divided, but had ever been one kingdom; then that part of soil or territory, which is comprehended under the name of Scotland, is in quantity (as I have heard it esteemed, how truly I know not) not past a third part of Britain; and that part of soil or territory which is comprehended under the name of England, is two parts of Britain, leaving to speak of any difference of wealth or population, and speaking only of quantity. So then if, for example, Scotland should bring to parliament as much nobility as England, then a third part should countervail two parts; *nam si inaequalibus aequalia addas, omnia erunt inaequalia*. And this, I protest before God and your majesty, I do speak not as a man born in England, but as a man born in Britain. And therefore to descend to the particulars:

Parliament.

For the parliaments, the consideration of that point will fall into four questions.

1. The first, what proportion shall be kept between the votes of England and the votes of Scotland?
2. The second touching the manner of proposition, or possessing of the parliament



ment of causes there to be handled; which in England is used to be done immediately by any member of the parliament, or by the prolocutor; and in Scotland is used to be done immediately by the lords of the articles; whereof the one form seemeth to have more liberty, and the other more gravity and maturity: and therefore the question will be, whether of these shall yield to other, or whether there should not be a mixture of both, by some commissions precedent to every parliament, in the nature of lords of the articles, and yet not excluding the liberty of propounding in full parliament afterwards?

3. The third, touching the orders of parliament, how they may be compounded, and the best of either taken?

4. The fourth, how those, which by inheritance or otherwise have offices of honour and ceremony in both the parliaments, as the lord steward with us, *etc.* may be satisfied, and duplicity accommodated?

For the councils of estate, while the kingdoms stand divided, it should seem necessary to continue several councils; but if your majesty should proceed to a strict union, then howsoever your majesty may establish some provincial councils in Scotland, as there is here of York, and in the marches of Wales, yet the question will be, whether it will not be more convenient for your majesty, to have but one privy council about your person, whereof the principal officers of the crown of Scotland to be for dignity sake, howsoever their abiding and remaining may be as your majesty shall employ their service? But this point belongeth merely and wholly to your majesty's royal will and pleasure.

For the officers of the crown, the consideration thereof will fall into these questions.

First, in regard of the latitude of your kingdom and the distance of place, whether it will not be matter of necessity to continue the several officers, because of the impossibility for the service to be performed by one?

The second, admitting the duplicity of officers should be continued, yet whether there should not be a difference, that one should be the principal officer, and the other to be but special and subaltern? as for example, one to be chancellor of Britain, and the other to be chancellor with some special addition, as here of the duchy, *etc.*

The third, if no such specialty or inferiority be thought fit, then whether both officers should not have the title and the name of the whole island and precincts? as the lord Chancellor of England to be lord Chancellor of Britain, and the lord Chancellor of Scotland to be lord Chancellor of Britain, but with several provisos that they shall not intromit themselves but within their several precincts.

For the nobilities, the consideration thereof will fall into these questions.

The first, of their votes in parliament (which was touched before) what proportion they shall bear to the nobility of England? wherein if the proportion which shall be thought fit, be not full, yet your majesty may, out of your prerogative, supply it; for although you cannot make fewer of Scotland, yet you may make more of England.

The second is touching the place and precedence wherein to marshal them according to the precedence of England in your majesty's style, and according to the nobility of Ireland; that is, all English earls first, and then Scottish, will be thought unequal for Scotland. To marshal them according to antiquity, will be thought unequal for England. Because I hear their nobility is generally more ancient: and therefore the question will be, whether the indifferent way were not to take them interchangeably; as for example, first, the ancient earl of England; and then the ancient earl of Scotland, and so *alternis vicibus*?

For the laws, to make an entire and perfect union, it is a matter of great difficulty and length, both in the collecting of them, and in the passing of them.

For first, as to the collecting of them, there must be made by the lawyers of either nation a digest under titles of their several laws and customs, as well common laws as statutes, that they may be collated and compared, and that the diversities may appear and be discerned of. And for the passing of them, we see by experience that *patrius mos* is dear to all men, and that men are bred and nourished

<sup>4</sup> Nobilities.

<sup>3</sup> Officers of the crown.

<sup>2</sup> Councils of estate.



up in the love of it; and therefore how harsh changes and innovations are. And we see likewise what disputation and argument the alteration of some one law doth cause and bring forth, how much more the alteration of the whole corps of the law? Therefore the first question will be, whether it be not good to proceed by parts, and to take that, that is most necessary, and leave the rest to time? The parts therefore or subject of laws, are for this purpose fittest distributed according to that ordinary division of criminal and civil, and those of criminal causes into capital and penal.

The second question therefore is, allowing the general union of laws to be too great a work to embrace, whether it were not convenient that cases capital were the same in both nations; I say the cases, I do not speak of the proceedings or trials; that is to say, whether the same offences were not fit to be made treason or felony in both places?

The third question is, whether cases penal, though not capital, yet if they concern the publick state, or otherwise the discipline of manners, were not fit likewise to be brought into one degree, as the case of misprision of treason, the case of *praemunire*, the case of fugitives, the case of incest, the case of simony, and the rest?

But the question that is more urgent than any of these is, whether these cases at the least, be they of an higher or inferior degree, wherein the fact committed, or act done in Scotland, may prejudice the state and subjects of England, or *e converso*, are not to be reduced into one uniformity of law and punishment? As for example, a perjury committed in a court of justice in Scotland, cannot be prejudicial in England, because depositions taken in Scotland cannot be produced and used here in England. But a forgery of a deed in Scotland, I mean with a false date of England, may be used and given in evidence in England. So likewise the depopulating of a town in Scotland doth not directly prejudice the state of England: but if an English merchant shall carry silver and gold into Scotland (as he may) and thence transport it into foreign parts, this prejudiceth the state of England, and may be an evasion to all the laws of England ordained in that case; and therefore had need to be bridled with as severe a law in Scotland, as it is here in England.

Of this kind there are many laws.

The law of the 5th of Richard II. of going over without licence, if there be not the like law in Scotland, will be frustrated and evaded: for any subject of England may go first into Scotland, and thence into foreign parts.

So the laws prohibiting transportation of sundry commodities, as gold, and silver, ordnance, artillery, corn, *etc.* if there be not a correspondence of laws in Scotland, will in like manner be deluded and frustrate; for any English merchant or subject may carry such commodities first into Scotland, as well as he may carry them from port to port in England; and out of Scotland into foreign parts, without any peril of law.

So libels may be devised and written in Scotland, and published and scattered in England.

Treasons may be plotted in Scotland and executed in England.

And so in many other cases, if there be not the like severity of law in Scotland to restrain offences, that there is in England (whereof we are here ignorant whether there be or no) it will be a gap or stop even for English subjects to escape and avoid the laws of England.

But for treasons, the best is that by the statute of 26 K. Henry VIII. *cap.* 13. any treason committed in Scotland, may be proceeded with in England, as well as treasons committed in France, Rome, or elsewhere.

<sup>6</sup> Courts of justice, trials, processes, and other administration of laws, to make any alteration in either nation, it will be a thing so new and unwonted to either people, that it may be doubted it will make the administration of justice (which of all other things ought to be known and certain as a beaten way) to become intricate and uncertain. And besides, I do not see that the severality of administration of justice, though it be by court sovereign of last resort (I mean without appeal or error) is any impediment at all to the union of a kingdom:







THE MOST HUMBLE

# CERTIFICATE OF RETURN

OF THE

Commissioners of ENGLAND and SCOTLAND,

Authorized to treat of

An UNION for the Weal of both Realms:

2 Jac. I. [Prepared, but altered.]

**W**E the commissioners for England and Scotland respectively named and appointed, in all humbleness do signify to his most excellent majesty, and to the most honourable high courts of parliament of both realms, that we have assembled ourselves, consulted and treated according to the nature and limits of our commission; and for as much as we do find that hardly within the memory of all times, or within the compass of the universal world, there can be shewed forth a fit example or precedent of the work we have in hand concurring in all points material, we thought ourselves so much the more bound to resort to the infallible and original grounds of nature and common reason, and freeing ourselves from the leading or misleading of examples, to insist and fix our considerations upon the individual business in hand, without wandering or discourses.

It seemed therefore unto us a matter demonstrative by the light of reason, that we were in first place to begin with the remotion and abolition of all manner of hostile, envious, or malign laws on either side, being in themselves mere temporary, and now by time become directly contrary to our present most happy estate; which laws, as they are already dead in force and vigour, so we thought fit now to wish them buried in oblivion; that by the utter extinguishment of the memory of discords past, we may avoid all seeds of relapse into discords to come.

Secondly, as matter of nature not unlike the former, we entered into consideration of such liminary constitutions as served but for to obtain a form of justice between subjects under several monarchs, and did in the very grounds and motives of them presuppose incursions, and intermixture of hostility: all which occasions, as they are in themselves now vanished and done away, so we with the abolition and cessation thereof to be declared.

Thirdly, for so much as the principal degree to union is communion and participation of mutual commodities and benefits, it appeared to us to follow next in order, that the commerce between both nations be set open and free, so as the commodities and provisions of either may pass and flow to and fro, without any stops or obstructions, into the veins of the whole body, for the better sustentation and comfort of all the parts: with caution nevertheless, that the vital nourishment be not so drawn into one part, as it may endanger a consumption and withering of the other.

Fourthly, after the communion and participation by commerce, which can extend but to the transmigration of such commodities as are moveable, personal, and transitory, there succeeded naturally that other degree, that there be made a mutual endowment and donation of either realm towards other of the abilities and capacities to take and enjoy things which are permanent, real, and fixed;



as namely, freehold and inheritance, and the like: and that as well the internal and vital veins of blood be opened from interruption and obstruction in making pedigree, and claiming by descent, as the external and elemental veins of passage and commerce; with reservation nevertheless unto the due time of such abilities and capacities only, as no power on earth can confer without time and education.

And lastly, because the perfection of this blessed work consisteth in the union, not only of the solid parts of the estate, but also in the spirit and sinews of the same, which are the laws and government, which nevertheless are already perfectly united in the head, but require a further time to be united in the bulk and frame of the whole body; in contemplation hereof we did conceive that the first step thereunto was to provide, that the justice of either realm should aid and assist, and not frustrate and interrupt the justice of the other, specially in sundry cases criminal; so that either realm may not be abused by malefactors as a sanctuary or place of refuge, to avoid the condign punishment of their crimes and offences.

All which several points, as we account them, summed up and put together, but as a degree or middle term to the perfection of this blessed work; so yet we conceived them to make a just and fit period for our present consultation and proceeding.

And for so much as concerneth the manner of our proceedings, we may truly make this attestation unto ourselves, that as the mark we shot at was union and unity, so it pleased God in the handling thereof to bless us with the spirit of unity, inasmuch as from our first setting unto the breaking up of our assembly (a thing most rare, the circumstance of the cause and persons considered) there did not happen or intervene, neither in our debates or arguments, any manner of altercation or strife of words; nor in our resolutions any variety or division of votes, but the whole passed with an unanimity and uniformity of consent: and yet so, as we suppose, there was never in any consultation greater plainness and liberty of speech, argument and debate, replying, contradicting, recalling, any thing spoken where cause was, expounding any matter ambiguous or mistaken; and all other points of free and friendly interlocution and conference, without cavillations, advantages, or overtakings: a matter that we cannot ascribe to the skill or temper of our own carriage, but to the guiding and conducting of God's holy providence and will, the true author of all unity and agreement. Neither did we, where the business required, rest so upon our own sense and opinions, but we did also aid and assist ourselves, as well with the reverend opinion of judges and persons of great science and authority in the laws, and also with the wisdom and experience of merchants, and men expert in commerce. In all which our proceedings, notwithstanding, we are so far from pretending or aiming at any prejudication, either of his royal majesty's sovereign and high wisdom, which we do most dutifully acknowledge to be able to pierce and penetrate far beyond the reach of our capacities; or of the solid and profound judgment of the high courts of parliament of both realms, as we do in all humbleness submit our judgments and doings to his sacred majesty, and to the parliaments, protesting our sincerity, and craving gracious and benign construction and acceptance of our travails.

We therefore with one mind and consent have agreed and concluded, that there be propounded and presented to his majesty and the parliament of both realms, these articles and propositions following. . . . .

A SPEECH



(644)  
S P E E C H

USED BY

Sir FRANCIS BACON, Knight,

In the Honourable House of Commons, 5 JACOBI,

Concerning the Article of the

GENERAL NATURALIZATION  
OF THE  
SCOTTISH NATION.

I may please you, Mr. Speaker, preface I will use none, but put myself upon your good opinions, to which I have been accustomed beyond my deservings; neither will I hold you in suspense what way I will chuse, but now at the first declare myself, that I mean to counsel the house to naturalize this nation: wherein, nevertheless, I have a request to make unto you, which is of more efficacy to the purpose I have in hand than all that I shall say afterwards. And it is the same, which Demosthenes did more than once, in great causes of estate, make to the people of Athens, *Ut cum calculus suffragiorum sumant magnanimitatem republicae*, that when they took into their hands the balls, whereby to give their voices (according as the manner of them was) they would raise their thoughts, and lay aside those considerations which their private vocations and degrees might minister and represent unto them, and would take upon them cogitations and minds agreeable to the dignity and honour of the estate.

For, Mr. Speaker, as it was aptly and sharply said by Alexander to Parmenio, when upon their recital of the great offers which Darius made, Parmenio said unto him, *I would accept these offers, were I as Alexander*: he turned it upon him again, *So would I, saith he, were I as Parmenio*. So in this cause, if an honest English merchant (I do not single out that state in disgrace, for this island ever held it honourable, but only for an instance of a private profession) if an English merchant should say, "Surely I would proceed no farther in the union, were I as the king;" it might be reasonably answered, "No more would the king, were he as an English merchant." And the like may be said of a gentleman of the country, be he never so worthy or sufficient; or of a lawyer, be he never so wise or learned; or of any other particular condition in this kingdom: for certainly, Mr. Speaker, if a man shall be only or chiefly sensible of those respects which his particular vocation and degree shall suggest and infuse into him, and not enter into true and worthy considerations of estate, he shall never be able aright to give counsel, or take counsel in this matter. So that if this request be granted, I account the cause obtained.

But to proceed to the matter itself: all consultations do rest upon questions comparative; for when a question is *de vero*, it is simple, for there is but one truth; but when a question is *de bono*, it is for the most part comparative; for there be differing degrees of good and evil, and the best of the good is to be preferred and chosen, and the worst of the evil is to be declined and avoided; and therefore in a question of this nature you may not look for answers proper to every inconvenience alledged; for somewhat that cannot be specially answered may, nevertheless, be encountered and over-weighed by matter of greater moment; and therefore the matter which I shall set forth unto you, will naturally receive this distribution of three parts.

First,



First, an answer to those inconveniencies which have been alleged to ensue, The answer to the inconveniencies if we should give way to this naturalization; which, I suppose, you will find not to be so great as they have been made; but that much drofs is put into the balance to help to make weight.

Secondly, an encounter against the remainder of those inconveniencies which cannot properly be answered, by much greater inconveniencies, which we shall incur if we do not proceed to this naturalization. Concerning the naturalization.

Thirdly, an encounter likewise, but of another nature, that is, by the gain and benefit which we shall draw and purchase to ourselves by proceeding to this naturalization. And yet, to avoid confusion, which evermore followeth upon too much generality, it is necessary for me (before I proceed to persuasion) to use some distribution of the points or parts of naturalization, which certainly can be no better, or none other, than the ancient distinction of *jus civitatis*, *jus suffragii vel tribus*, and *jus petitionis sive honorum*: for all ability and capacity is either of private interest of *meum et tuum*, or of publick service; and the publick consisteth chiefly either in voice, or in action, or office. Now it is the first of these, Mr. Speaker, that I will only handle at this time and in this place, and reserve the other two for a committee, because they receive more distinction and restriction.

To come therefore to the inconveniencies alleged on the other part, the first of them is, that there may ensue of this naturalization a surcharge of people upon this realm of England, which is supposed already to have the full charge and content; and therefore there cannot be an admission of the adoptive without a diminution of the fortunes and conditions of those that are native subjects of this realm. A grave objection, Mr. Speaker, and very dutiful; for it proceeds not of any unkindness to the Scottish nation, but of a natural fastness to ourselves; for that answer of the virgins, *Ne forte non sufficiat vobis et nobis*, proceeded not out of any envy or malign humour, but out of providence, and that original charity which begins with ourselves. And I must confess, Mr. Speaker, that as the gentleman said, when Abraham and Lot, in regard of the greatness of their families, grew pent and straitened, it is true, that (brethren though they were) they grew to difference, and to those words, *Vade tu ad dexteram, et ego ad sinistram, etc.* But, certainly, I should never have brought that example on that side; for we see what followed of it, how that this separation *ad dexteram et ad sinistram* caused the miserable captivity of the one brother, and the dangerous, though prosperous war of the other, for his rescue and recovery.

But to this objection, Mr. Speaker, being so weighty and so principal, I mean to give three several answers, every one of them being, to my understanding, by itself sufficient.

The first is, that this opinion of the numbers of the Scottish nation, that I should be likely to plant themselves here amongst us, will be found to be a thing rather in conceit than in event; for, Mr. Speaker, you shall find those plausible similitudes, of a tree that will thrive the better if it be removed into the more fruitful soil; and of sheep or cattle, that if they find a gap or passage open will leave the more barren pasture, and get into the more rich and plentiful, to be but arguments merely superficial, and to have no sound resemblance with the transplanting or transferring of families; for the tree, we know, by nature, as soon as it is set in the better ground, can fasten upon it, and take nutriment from it; and a sheep, as soon as he gets into the better pasture, what should let him to graze and feed? But there belongeth more, I take it, to a family or particular person, that shall remove from one nation to another: for if, Mr. Speaker, they have not stock, means, acquaintance, and custom, habitation, trades, countenance, and the like, I hope you doubt not but they will starve in the midst of the rich pasture, and are far enough off from grazing at their pleasure: and therefore in this point, which is conjectural, experience is the best guide; for the time past is a pattern of the time to come. I think no man doubteth, Mr. Speaker, but his majesty's first coming in was as the greatest spring-tide for the concurrence and entrance of that nation. Now I would fain understand, in these four years space, and in the fulness and strength of the current and tide, how many families of Scotsmen are planted in the cities, boroughs, and towns of this kingdom;



dom; for I do assure myself, that, more than some persons of quality about his majesty's person here at court, and in London, and some other inferior persons, that have a dependance upon them, the return and certificate, if such a survey should be made, would be of a number extremely small: I report me to all your private knowledges of the places where you inhabit.

Now, Mr. Speaker, as I said, *Si in Regno viridi utitur, quid sit in virido?* I am sure there will be no more such spring-tides. But you will tell me of a multitude of families of the Scottish nation in Polonia; and if they multiply in a country so far off, how much more here at hand? For that, Mr. Speaker, you must impute it of necessity to some special accident of time and place that draws them thither: for you see plainly before your eyes, that in Germany, which is much nearer, and in France, where they are invited with privileges, and with this very privilege of naturalization, yet no such number can be found; so as it cannot either be nearness of place, or privilege of person, that is the cause. But shall I tell you, Mr. Speaker, what I think? Of all places in the world, near or far off, they will never take that course of life in this kingdom, which they content themselves with in Poland; for we see it to be the nature of all men that they will rather discover poverty abroad, than at home. There is never a gentleman that hath over-reached himself in expence, and thereby thrust abate his countenance, but he will rather travel, and do it abroad, than at home: and we know well they have good high stomachs, and have ever stood in some terms of emulation with us: and therefore they will never live here, except they live in good fashion. So as I assure you, Mr. Speaker, I am of opinion that the strife, which we now have to admit them, will have like sequel as that contention had between the nobility and people of Rome, for the admitting of a plebeian consul; which whilst it was in passing was very vehement, and mightily stood upon, and when the people had obtained it, they never made any plebeian consul, nor not in sixty years after: and so will this be for many years, as I am persuaded, rather a matter in opinion and reputation, than in use or effect. And this is the first answer that I give to this main inconvenience pretended, of surcharge of people.

England  
not peo-  
pled to  
the full.

The second answer which I give to this objection, is this: I must have leave to doubt, Mr. Speaker, that this realm of England is not yet peopled to the full; for certain it is, that the territories of France, Italy, Flanders, and some parts of Germany, do in equal space of ground bear and contain a far greater quantity of people, if they were mustered by the poll; neither can I see, that this kingdom is so much inferior unto those foreign parts in fruitfulness, as it is in population; which makes me conceive we have not our full charge.

I do see manifestly amongst us the badges and tokens rather of scarceness, than of press of people, as drowned grounds, commons, wastes, and the like; which is a plain demonstration, that howsoever there may be an over-swelling throng and press of people here about London, which is most in our eye, yet the body of the kingdom is but thin sown with people: and whatsoever shall compare the ruins and decays of ancient towns in this realm, with the erections and augmentations of new, cannot but judge that this realm hath been far better peopled in former times; it may be, in the heptarchy, or otherwise: for generally the rule holdeth, the smaller the state, the greater the population, *pro rata*. And whether this be true or no, we need not seek farther, than to call to our remembrance how many of us serve here in this place for desolate and decayed boroughs.

Mediter-  
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people.

Again, Mr. Speaker, whosoever looketh into the principles of estate, must hold that it is the mediterranean countries, and not the maritime, which need to fear surcharge of people; for all sea-provinces, and especially islands, have another element besides the earth and soil, for their sustentation. For what an infinite number of people are, and may be, sustained by fishing, carriage by sea, and merchandizing? Wherein again I do discover, that we are not at all pinched by the multitude of people; for if we were, it were not possible that we should relinquish and resign such an infinite benefit of fishing to the Flemings, as it is well known we do. And therefore I see, that we have wastes by sea, as well as by land; which still is an insaluble argument that our industry is not awakened to seek maintenance by any over-great press or charge of people. And lastly, Mr. Speaker,



# OF GENERAL NATURALIZATION.

Speaker, there was never any kingdom in the ages of the world had, I think, so fair and happy means to issue and discharge the multitude of their people (if it were too great) as this kingdom hath, in regard of that desolate and wasted realm of Ireland; which being a country blessed with almost all the dowries of nature, as rivers, havens, woods, quarries, good soil, and temperate climate, and now at last under his majesty blessed also with obedience, doth, as it were, continually call unto us for our colonies and plantations. And so I conclude my second answer to this pretended inconvenience, of surcharge of people.

The third answer, Mr. Speaker, which I give, is this; I demand what is the worst effect that can follow of surcharge of people? Look into all stories, and you shall find it none other, than some honourable war for the enlargement of their borders, which find themselves pent, upon foreign parts; which inconvenience, in a valorous and warlike nation, I know not whether I should term an inconvenience or no; for the saying is most true, though in another sense, *Omne solum forti patria*. It was spoken indeed of the patience of an exiled man, but it is no less true of the valour of a warlike nation. And certainly, Mr. Speaker, I hope I may speak it without offence, that if we did hold ourselves worthy, whensoever just cause should be given, either to recover our ancient rights, or to revenge our late wrongs, or to attain the honour of our ancestors, or to enlarge the patrimony of our posterity, we would never in this manner forget considerations of amptitude and greatness, and fall at variance about profit and reckonings; sifter a great deal for private persons, than for parliaments and kingdoms. And thus, Mr. Speaker, I leave this first objection to such satisfaction as you have heard.

The second objection is, that the fundamental laws of both these kingdoms of England and Scotland are yet diverse and several; nay more, that it is declared by the instrument, that they shall so continue, and that there is no intent in his majesty to make innovation in them; and therefore that it should not be seasonable to proceed to this naturalization, whereby to endow them with our rights and privileges, except they should likewise receive and submit themselves to our laws; and this objection likewise (Mr. Speaker) I allow to be a weighty objection, and worthy to be well answered and discussed.

The answer which I shall offer is this: it is true, for my own part (Mr. Speaker) that I with the Scottish nation governed by our laws, for I hold our laws with some redcement worthy to govern, if it were the world: but this is that which I say, and I desire therein your attention, that, according to true reason of estate, naturalization is in order first and precedent to union of laws; in degree a less matter than union of laws; and in nature separable, not inseparable from union of laws; for naturalization doth but take out the marks of a foreigner, but union of laws makes them entirely as ourselves. Naturalization taketh away separation; but union of laws doth take away distinction. Do we not see, Mr. Speaker, that in the administration of the world under the great monarch God himself, that his laws are diverse; one law in spirits, another in bodies; one law in regions celestial, another in elementary; and yet the creatures are all one mass or lump, without any vacuum or separation? Do we not likewise see in the state of the church, that amongst people of all languages and languages there is one communion of saints, and that we are all fellow-citizens and naturalized of the heavenly Jerusalem; and yet nevertheless divers and several ecclesiastical laws, policies, and hierarchies, according to the speech of that worthy father, *In velle varietas sit, scissura non sit*? And therefore certainly, Mr. Speaker, the bond of law is the more special and private bond, and the bond of naturalization the more common and general; for the laws are rather *figura rei-publicae* than *forma*, and rather bonds of perfection than bonds of entrenchment; and therefore we see in the experience of our own government, that in the kingdom of Ireland all our statute laws, since Poyning's law, are not in force; and yet we deny them not the benefit of naturalization. In Guernsey and Jersey and the isle of Man, our common laws are not in force, and yet they have the benefit of naturalization; neither need any man doubt but that our laws and customs must in small time gather and win upon theirs; for here is the seat of the kingdom,



kingdom, whence come the supreme directions of estate: here is the king's person and example, of which the verse saith, *Regis ad exemplum totus componitur orbis*. And therefore it is not possible, although not by solemn and formal act of estates, yet by the secret operation of no long time, but they will come under the yoke of our laws, and so *dulcis tractus pari jugo*. And this is the answer I give to the second objection.

Inequality  
in the for-  
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England  
and Scot-  
land.

The third objection is, some inequality in the fortunes of these two nations, England and Scotland, by the commixture whereof there may ensue advantage to them and loss to us. Wherein, Mr. Speaker, it is well that this difference or disparity consisteth but in the external goods of fortune; for indeed it must be confessed, that for the goods of the mind and the body, they are *alteri nos*, other ourselves; for to do them but right, we know in their capacities and understandings they are a people ingenious, in labour industrious, in courage valiant, in body hard, active and comely. More might be said, but in commending them we do but in effect commend ourselves; for they are of one piece and continent with us; and the truth is, we are participant both of their virtues and vices. For if they have been noted to be a people not so tractable in government, we cannot, without flattering ourselves, free ourselves altogether from that fault, being a thing indeed incident to all martial people; as we see it evident by the example of the Romans and others; even like unto fierce horses, that though they be of better service than others, yet are they harder to guide and manage.

But for this objection, Mr. Speaker, I purpose to answer it, not by the authority of Scriptures, which saith, *Beatus est dare quam accipere*, but by an authority framed and derived from the judgment of ourselves and our ancestors in the same case, as to this point. For, Mr. Speaker, in all the line of our kings none useth to carry greater commendation than his majesty's noble progenitor king Edward the first of that name; and amongst his other commendations, both of war and policy, none is more celebrated than his purpose and enterprise for the conquest of Scotland, as not bending his designs to glorious acquiescence abroad, but to solid strength at home; which, nevertheless, if it had succeeded well could not but have brought in all those inconveniences of the commixture of a more opulent kingdom with a less, that are now alledged. For it is not the yoke, either of our laws or arms, that can alter the nature of the climate or the nature of the soil; neither is it the manner of the commixture that can alter the matter of the commixture: and therefore, Mr. Speaker, if it were good for us then, it is good for us now, and not to be prised the less because we payed not so dear for it. But a more full answer to this objection I refer over to that, which will come after, to be spoken touching surety and greatness.

Laws or  
arms can  
not alter  
the nature  
of cli-  
mates.

The fourth objection, Mr. Speaker, is not properly an objection, but rather a pre-occupation of an objection of the other side; for it may be said, and very materially, Whereabout do we contend? The benefit of naturalization is by the law, in as many as have been, or shall be born since his majesty's coming to the crown, already settled and invested. There is no more then but to bring the *ante-nati* into the degree of the *post-nati*, that men grown that have well deserved, may be in no worse case than children which have not deserved, and elder brothers in no worse case than younger brothers; so as we stand upon *quidam*, not *quantum*, being but a little difference of time of one generation from another. To this, Mr. Speaker, it is said by some, that the law is not so, but that the *post-nati* are aliens as well as the rest. A point that I mean not much to argue, both because it hath been well spoken to by the gentleman that spoke last before me; and because I do desire in this case and in this place to speak rather of convenience than of law: only this I will say, that that opinion seems to me contrary to reason of law, contrary to form of pleading in law, and contrary to authority and experience of law. For reason of law, when I meditate of it, me thinks the wisdom of the common laws of England well observed, is admirable in the distribution of the benefit and protection of the laws, according to the several conditions of persons, in an excellent proportion. The degrees are four, but bipartite, two of aliens and two of subjects.

The first degree is of an alien born under a king or state, that is an enemy. If such



such an one come into this kingdom without safe-conduct, it is at his peril; the first law giveth him no protection, neither for body, lands, nor goods; so as if he be slain there is no remedy by any appeal at the party's suit, although his wife were an English woman: marry at the king's suit, the case may be otherwise in regard of the offence to the peace.

The second degree is of an alien that is born under the faith and allegiance of a king or state that is a friend. Unto such a person the law doth impart a greater benefit and protection, that is, concerning things personal, transitory, and moveable, as goods and chattels, contracts and the like, but not concerning freehold and inheritance. And the reason is, because he may be an enemy, though he is not; for the state under the obedience of which he is, may enter into quarrel and hostility; and therefore as the law hath but a transitory assurance of him, so it rewards him but with transitory benefits.

The third degree is of a subject, who having been an alien, is made free by charter and denization. To such an one the law doth impart yet a more benefit; for it gives him power to purchase freehold and inheritance to his own use, and likewise enables the children born after his denization to inherit. But yet nevertheless he cannot make title or convey pedigree from any ancestor paramount; for the law thinks not good to make him in the same degree with a subject born, because he was once an alien, and so might once have been an enemy; and *nemo subito singitur*, mens affections cannot be so settled by any benefit, as when from their nativity they are inbred and inherent.

And the fourth degree, which is the perfect degree, is of such a person as neither is enemy, nor could have been enemy in time past, nor can be enemy in time to come; and therefore the law gives unto him the full benefit of naturalization. The perfect degree.

Now, Mr. Speaker, if these be the true steps and paces of the law, no man can deny but whosoever is born under the king's obedience, never could in *any* *circumstances* be an enemy (a rebel he might be, but no enemy) and therefore in reason of law is naturalized. Nay, contrariwise, he is bound *jure naturalis* to defend this kingdom of England against all invaders or rebels; and therefore as he is obliged to the protection of arms, and that perpetually and universally, so he is to have the perpetual and universal benefit and protection of law, which is naturalization.

For form of pleading, it is true that hath been said, that if a man would plead another to be an alien, he must not only set forth negatively and privatively, that he was born out of the obedience of our sovereign lord the king, but affirmatively, under the obedience of a foreign king or state in particular, which can never be done in this case.

As for authority, I will not press it; you know all what hath been published by the king's proclamation. And for experience of law we see it in the subjects of Ireland, in the subjects of Guernsey and Jersey, parcels of the duchy of Normandy; in the subjects of Calais, when it was English, which was parcel of the crown of France. But, as I said, I am not willing to enter into an argument of law, but to hold myself to point of convenience, so as for my part I hold all *post-nati* naturalized *ipso jure*; but yet I am far from opinion, that it should be a thing superfluous to have it done by parliament; chiefly in respect of that true principle of state, *Principum actiones precipue ad sanam sunt componendae*. It will lift up a sign to all the world of our love towards them, and good agreement with them. And these are, Mr. Speaker, the material objections which have been made on the other side, whereunto you have heard my answers; weigh them in your wisdoms, and so I conclude that general part.

Now, Mr. Speaker, according as I promised, I must fill the other balance in expressing unto you the inconveniences which we shall incur, if we shall not proceed to this naturalization: wherein that inconvenience, which above all others, and alone by itself, if there were none other, doth exceedingly move me, and may move you, is a position of estate, collected out of the records of time, which is this: that wheresoever several kingdoms or estates have been united in sovereignty, if that union hath not been fortified and bound in with a farther union,



union, and namely, that which is now in question (of naturalization) this hath followed, that at one time or other they have broken again, being upon all occasions apt to revolt and relapse to the former separation.

The union between the Romans and the Latins.

Of this assertion the first example which I will set before you, is of that memorable union which was between the Romans and the Latins, which continued from the battle at the lake of Regilla, for many years, unto the consulships of C. Plautius, and L. Fimilius Mamercus. At which time there began, about this very point of naturalization, that war which was called *Bellum sociale*, being the most bloody and pernicious war that ever the Roman state endured: wherein, after numbers of battles and infinite sieges and surprizes of towns, the Romans in the end prevailed and mastered the Latins: but as soon as ever they had the honour of the war, looking back into what perdition and confusion they were near to have been brought, they presently naturalized them all. You speak of a naturalization in blood; there was a naturalization indeed in blood.

Sparta and Peloponnesus.

Let me set before you again the example of Sparta, and the rest of Peloponnesus their associates. The state of Sparta was a nice and jealous state in this point of imparting naturalization to their confederates. But what was the issue of it? After they had held them in a kind of society and amity for divers years, upon the first occasion given (which was no more than the surprisal of the castle of Tebes, by certain desperate conspirators in the habit of maskers) there ensued immediately a general revolt and defection of their associates; which was the ruin of their state, never afterwards to be recovered.

The union of the kingdom of Arragon.

Of later times let me lead your consideration to behold the like events in the kingdom of Arragon; which kingdom was united with Castile and the rest of Spain in the persons of Ferdinando and Isabella, and so continued many years; but yet so as it stood a kingdom severed and divided from the rest of the body of Spain in privileges, and directly in this point of naturalization, or capacity of inheritance. What came of this? Thus much, that now of fresh memory, not past twelve years since, only upon the voice of a condemned man out of the grate of a prison towards the street, that cried, *Fueros Libertad, Libertad* (which is as much as, liberties or privileges) there was raised a dangerous rebellion, which was suppressed with great difficulty with an army royal. After which victory nevertheless, to shun farther inconvenience, their privileges were dismantled, and they were incorporated with Castile and the rest of Spain. Upon so small a spark, notwithstanding so long continuance, were they ready to break and sever again.

Florence and Pisa.

The like may be said of the states of Florence and Pisa, which city of Pisa being united unto Florence, but not endowed with the benefit of naturalization, upon the first light of foreign assistance, by the expedition of Charles VIII. of France into Italy, did revolt; though it be since again reunited and incorporated.

The like effects in barbarous governments.

The same effect we see in the most barbarous government, which shews it the rather to be an effect of nature; for it was thought a fit policy by the council of Constantinople, to retain the three provinces of Transylvania, Wallachia, and Moldavia (which were as the very nurseries of Constantinople, in respect of their provisions) to the end they might be the less wasted, only under Waywods as vassals and homagers, and not under Bahaws, as provinces of the Turkish empire; which policy we see by late experience proved unfortunate, as appeared by the revolt of the same three provinces, under the arms and conduct of Sigismund prince of Transylvania; a leader very famous for a time; which revolt is not yet fully recovered. Whereas we seldom or never hear of revolts of provinces incorporated to the Turkish empire.

On the other part, Mr. Speaker, because it is true what the logicians say, *Opposita juxta se posita magis elucescunt*: let us take a view, and we shall find that wheresoever kingdoms and states have been united, and that union corroborate by the bond of mutual naturalization, you shall never observe them afterwards upon

\* Sixty years after that battle. There are extant at this day coins or medals, in memory of a battle fought by the C. Plautius at Privernum. Another copy hath of J. T. Merilus and P. Bermano 1603 551 552.



any occasion of trouble or otherwise, to break and sever again: as we see most evidently before our eyes, in divers provinces of France, that is to say Guienne, Provence, Normandy, Britain, which, notwithstanding the infinite pressing troubles of that kingdom, never offered to break again.

We see the like effect in all the kingdoms of Spain, which are mutually naturalized, as Leon, Castile, Valentia, Andalusia, Granada, Murcia, Toledo, Catalonia, and the rest, except Arragon, which held the contrary course, and therefore had the contrary success (as was said) and Portugal, of which there is not yet sufficient trial. And lastly, we see the like effect in our own nation, which never rent asunder after it was once united; so as we now scarce know whether England the heptarchy were a true story or a fable. And therefore, Mr. Speaker, when I revolve with myself these examples and others, so lively expressing the necessity of a naturalization to avoid a relapse into a separation; and do hear so many arguments and scruples made on the other side; it makes me think on the old bishop, which, upon a publick disputation of certain christian divines with some learned men of the heathen, did extremely press to be heard; and they were both to suffer him, because they knew he was unlearned, though otherwise an holy and well-meaning man: but at last, with much ado, he got to be heard; and when he came to speak, instead of using argument, he did only say over his belief: but did it with such assurance and constancy, that it did strike the minds of those that heard him, more than any argument had done. And so, Mr. Speaker, against all these witty and subtle arguments, I say, that I do believe, and I would be sorry to be found a prophet in it, that except we proceed with this naturalization, though perhaps not in his majesty's time, who hath such interest in both nations, yet in the time of his descendants these realms will be in continual danger to divide and break again. Now if any man be of that careless mind,

*Mentat nobis la cura nepotes*; or of that hard mind, to leave things to be tried by the sharpest sword: sure I am, he is not of St. Paul's opinion, who affirmeth, that whosoever useth not fore-sight and provision for his family, is worse than an unbeliever; much more, if we shall not use fore-sight for these two kingdoms, that comprehend in them so many families, but leave things open to the peril of future divisions. And thus have I expressed unto you the inconvenience which, of all others, sinketh deepest with me as the most weighty: neither do there want other inconveniences, Mr. Speaker, the effects and influence whereof, I fear, will not be adjourned to so long a day as this that I have spoken of: for I leave it to your wisdom to consider whether you do not think, in case, by the denial of this naturalization, any pique, alienation, or unkindness, I do not say should be, but should be thought to be, or noised to be between these two nations, whether it will not quicken and excite all the envious and malicious humours, wheresoever (which are now covered) against us, either foreign or at home; and so open the way to practices and other engines and machinations, to the disturbance of this state? As for that other inconvenience of his majesty's engagement to this action, it is too binding, and too pressing to be spoken of, and may do better a great deal in your minds than in my mouth, or in the mouth of any man else; because, as I say, it doth press our liberty too far. And therefore, Mr. Speaker, I come now to the third general part of my division, concerning the benefits which we shall purchase by this knitting of the knot surer and straiter between these two kingdoms, by the communicating of naturalization: the benefits may appear to be two, the one surety, the other greatness.

Touching surety, Mr. Speaker, it was well said by Titus Quintus the Roman, *The touching the state of Peloponnesus, that the tortoise is safe within her shell, Telesido intra tegumen tuta est*; but if there be any parts that lie open, they endanger all the rest. We know well, that although the state at this time be in a happy peace, yet for the time past, the more ancient enemy to this kingdom hath been the French, and the more late the Spaniard; and both these had as it were their several postern gates, whereby they might have approach and entrance to annoy us: France had Scotland, and Spain had Ireland; for these were the two accessess which did comfort and encourage both these enemies to assail and trouble us. We see that of Scotland is cut off by the union of these two kingdoms;

if



if that it shall be now made constant and permanent; that of Ireland is cut off likewise by the convenient situation of the west of Scotland towards the north of Ireland, where the fore was: which we see, being suddenly closed, hath continued closed by means of this salve; so that as now there are no parts of this state exposed to danger to be a temptation to the ambition of foreigners, but their approaches and avenues are taken away: for I do little doubt but those foreigners which had such little success when they had those advantages, will have much less comfort now that they be taken from them: and so much for surety.

The benefit of greatness.

For greatness, Mr. Speaker, I think a man may speak it soberly and without bravery, that this kingdom of England, having Scotland united, Ireland reduced, the sea-provinces of the Low Countries contracted, and shipping maintained, is one of the greatest monarchies, in forces truly esteemed, that hath been in the world. For certainly the kingdoms here on earth have a resemblance with the kingdom of heaven, which our Saviour compareth, not to any great kernel or nut, but to a very small grain, yet such an one as is apt to grow and spread; and such do I take to be the constitution of this kingdom; if indeed we shall refer our counsels to greatness and power, and not quench them too much with the consideration of utility and wealth. For, Mr. Speaker, was it not, think you, a true answer that Solon of Greece made to the rich king Cræsus of Lydia, when he shewed unto him a great quantity of gold that he had gathered together, in ostentation of his greatness and might? But Solon said to him, contrary to his expectation, "Why, Sir, if another come that hath better iron than you, he will be lord of all your gold." Neither is the authority of Machiavel to be despised, who scorneth that proverb of state, taken first from a speech of Mucianus, That moneys are the sinews of war; and saith, "There are no true sinews of war, but the very sinews of the arms of valiant men."

The beginning of monarchies founded in poverty.

Nay more, Mr. Speaker, whosoever shall look into the seminaries and beginnings of the monarchies of the world, he shall find them founded in poverty. Persia, a country barren and poor, in respect of Media, which they subdued. Macedon, a kingdom ignoble and mercenary until the time of Philip the son of Amyntas.

Rome.

The Turks.

Rome had poor and pastoral beginnings. The Turks, a band of Sarmathian Scythes, that in a vagabond manner made incursion upon that part of Asia, which is yet called Turcomania; out of which, after much variety of fortune, sprung the Ottoman family, now the terror of the world.

So, we know, the Goths, Vandals, Alans, Huns, Lombards, Normans, and the rest of the northern people, in one age of the world made their descent or expedition upon the Roman empire, and came not, as rovers, to carry away prey, and be gone again; but planted themselves in a number of rich and fruitful provinces, where not only their generations, but their names, remain to this day; witness Lombardy, Catalonia (a name compounded of Goth and Alan) Andalusia (a name corrupted from Vandalitia) Hungaria, Normandy, and others.

The Swissers.

Nay, the fortune of the Swisses of late years, which are bred in a barren and mountainous country, is not to be forgotten; who first ruined the duke of Burgundy, the same who had almost ruined the kingdom of France, what time, after the battle near Granson, the rich jewel of Burgundy, prized at many thousands, was sold for a few pence by a common Swiss, that knew no more what a jewel meant, than did Æsop's cock. And again, the same nation, in revenge of a scorn, was the ruin of the French king's affairs in Italy, Lewis XII. For that king, when he was pressed somewhat rudely by an agent of the Swissers to raise their pensions, brake into words of choler: "What (saith he) will these villains of the mountains put a tax upon me?" Which words lost him his duchy of Milan, and chafed him out of Italy.

All which examples, Mr. Speaker, do well prove Solon's opinion of the authority and mastery that iron hath over gold. And therefore, if I shall speak unto you mine own heart, methinks, we should a little disdain that the nation of Spain (which howsoever of late it hath grown to rule, yet of ancient time served many ages; first under Carthage, then under Rome, after under Saracens, Goths, and



others, should of late years take unto themselves that spirit as to dream of a monarchy in the west, according to that device, *Vide solem orientem in occidente*, only because they have ravished from some wild and unarmed people mines and store of gold; and on the other side, that this island of Britain, seated and manned as it is, and that hath, I make no question, the best iron in the world, that is, the best soldiers in the world, shall think of nothing but reckonings and audits, and *menum et tuum*, and I cannot tell what.

Mr. Speaker, I have, I take it, gone through the parts which I propounded to myself, wherein if any man shall think that I have sung a *placebo*, for mine own particular, I would have him know that I am not so unseen in the world, but that I discern it were much alike for my private fortune to rest a *tacebo*, as to sing a *placebo* in this business: but I have spoken out of the fountain of my heart, *Credidi propter quod locutus sum*: I believed, therefore, I spake. So as my duty is performed: the judgment is yours; God direct it for the best.





220

OF THE NAME OF FAY 2<sup>nd</sup> (1854)

# SCIENCE

USED BY

**Sir FRANCIS BACON, Knight,**

In the Lower Houfe of Parliament,

By Occasion of a Motion concerning the

# UNION of LAW S.

AND it please you, Mr. Speaker, were it now a time to with, as it is to advise, no man should be more forward or more earnest than myself in this with, that his majesty's subjects of England and Scotland were governed by one law: and that for many reasons.

First, Because it will be an infallible assurance that there will never be any relapse in succeeding ages to a separation.

Secondly, *Dulcis tractus pari jugo*. If the draught lie most upon us, and the yoke lie lightest on them, it is not equal.

Thirdly, the qualities, and (as I may term it) the elements of their laws and ours are such, as do promise an excellent temperature in the compounded body; for if the prerogative here be too indefinite, it may be the liberty there is too unbounded; if our laws and proceedings be too prolix and formal, it may be theirs are too informal and summary.

Fourthly, I do discern to my understanding, there will be no great difficulty in this work; for their laws, by that I can learn, compared with ours, are like their language compared with ours: for as their language hath the same roots that ours hath, but hath a little more mixture of Latin and French; so their laws and customs have the like grounds that ours have, with a little more mixture of the civil law and French customs.

Lastly, The mean to this work seemeth to me no less excellent than the work itself: for if both laws shall be united, it is of necessity for preparation and inducement thereunto, that our own laws be reviewed and re-compiled, than the which I think there cannot be a work, that his majesty can undertake in these his times of peace, more politic, more honourable, nor more beneficial to his subjects for all ages:

*Pace data in terris, animum ad civilia vertit*

*Jura suum, legesque tulit justissimus auctor.*

For this continual heaping up of laws without digesting them, maketh but a chaos and confusion, and turneth the laws many times to become but snares for the people, as is said in the Scripture. *Pluet super eos laqueos. Non sunt peiores laquei, quam laquei legum.* And therefore this work I esteem to be indeed a work (rightly to term it) heretical. So that for this good will of union of laws I do consent to the full: and I think you may perceive by that which I have said, that I come not in this to the opinion of others, but that I was long ago fettered in it myself: nevertheless as this is moved out of zeal, so I take it to be moved out of time, as commonly zealous motions are, while men are so fast carried on to the end, as they give no attention to the mean: for if it be time to talk of this now, it is either because the business now in hand cannot proceed without it, or because in time and order this matter should be precedent, or because we shall lose some advantage towards this effect so much desired, if we should go on in the course we are about. But none of these three in my judgment are true; and therefore the motion (as I said) unseasonable.

For



For first, that there may not be a naturalization without an union in laws, cannot be maintained. Look into the example of the church, and the union thereof. You shall see several churches, that join in one faith, one baptism, which are the points of spiritual naturalization, do many times in policy, constitutions, and customs differ: and therefore one of the fathers made an excellent observation upon the two mysteries; the one, that in the gospel, where the garment of Christ is said to have been without seam; the other, that in the psalm, where the garment of the queen is said to have been of divers colours; and concludeth, *In veste varietas fit, scissura non fit*. So in this case, Mr. Speaker, we are now in hand to make this monarchy of one piece, and not of one colour. Look again into the examples of foreign countries, and take that next us of France, and there you shall find that they have this distribution, *pais du droit escrit*, and *pais du droit coutumier*. For Gascoigne, Languedoc, Provence, Dauphiny, are countries governed by the letter, or text of the civil law: but the isle of France, Tourain, Berry, Anjou, and the rest, and most of all Britain and Normandy are governed by customs, which amount to a municipal law, and use the civil law but only for grounds, and to decide new and rare cases; and yet nevertheless naturalization passeth through all.

Secondly, That this union of laws should precede the naturalization, or that it should go on *pari passu*, hand in hand, I suppose likewise, can hardly be maintained; but the contrary, that naturalization ought to precede, and that not in the precedence of an instant; but in distance of time: of which my opinion, as I could yield many reasons, so because all this is but a digression, and therefore ought to be short, I will hold myself now only to one, which is briefly and plainly this; that the union of laws will ask a great time to be perfected, both for the compiling and for the passing of them. During all which time, if this mark of strangers should be denied to be taken away, I fear it may induce such a habit of strangeness, as will rather be an impediment than a preparation to farther proceeding: for he was a wise man that said, *Opportuni magnus conatus transire novum*, and in these cases, *non progredi, est regredi*. And like as in a pair of tables, you must put out the former writing before you can put in new; and again, that which you write in, you write letter by letter; but that which you put out, you put out at once: so we have now to deal with the tables of mens hearts, wherein it is in vain to think you can enter the willing acceptance of our laws and customs, except you first put forth all notes either of hostility or foreign condition: and these are to be put out *simul et semel*, at once without gradations; whereas the other points are to be imprinted and engraven distinctly and by degrees.

Thirdly, Whereas it is conceived by some, that the communication of our benefits and privileges is a good hold that we have over them to draw them to submit themselves to our laws, it is an argument of some probability, but yet to be answered many ways. For first, the intent is mistaken, which is not, as I conceive it, to draw them wholly to a subjection to our laws, but to draw both nations to one uniformity of law. Again, to think that there should be a kind of articulate and indented contract, that they should receive our laws to obtain our privileges, it is a matter in reason of estate not to be expected, being that which scarcely a private man will acknowledge, if it come to that whereof Seneca speaketh, *Beneficium accipere est libertatem vendere*. No, but courtes of estate do describe and delineate another way, which is, to win them either by benefit or by custom: for we see in all creatures that men do feed them first, and reclaim them latter. And so in the first institution of kingdoms, kings did first win people by many benefits and protections, before they prest any yoke. And for custom, which the poet calls *imponere morem*; who doubts but that the fear of the kingdom, and the example of the king resting here with us, our manners will quickly be there, to make all things ready for our laws? And lastly, the naturalization, which is now propounded, is qualified with such restrictions as there will be enough kept back to be used at all times for an adamant of drawing them farther on to our desires. And therefore to conclude, I hold this



motion of union of laws very worthy, and arising from very good minds; but yet not proper for this time.

To come therefore to that, which is now in question, it is no more but whether there should be a difference made, in this privilege of naturalization, between the *ante-nati* and the *post-nati*, not in point of law (for that will otherwise be decided) but only in point of convenience; (as if a law were now to be made *de novo*,) In which question I will at this time only answer two objections, and use two arguments, and so leave it to your judgment.

The first objection hath been, that if a difference should be, it ought to be in favour of the *ante-nati*, because they are persons of merit, service, and proof; whereas the *post-nati* are infants, that (as the Scripture saith) know not the right hand from the left.

This were good reason, Mr. Speaker, if the question were of naturalizing some particular persons by a private bill; but it hath no proportion with the general case: for now we are not to look to respects, that are proper to some; but to those, which are common to all. Now then how can it be imagined, but that those, which took their first breath since this happy union, inherent in his majesty's person, must be more assured and affectionate to this kingdom, than those generally can be presumed to be, which were sometimes strangers? for *Nemo subito fingitur*: the conversions of minds are not so swift as the conversions of times. Nay in effects of grace, which exceed far the effects of nature, we see St. Paul makes a difference between those he calls Neophytes, that is, newly grafted into christianity, and those that are brought up in the faith. And so we see by the laws of the church, that the children of christians shall be baptized in regard of the faith of their parents: but the child of an ethnic may not receive baptism till he be able to make an understanding profession of his faith.

Another objection hath been made, that we ought to be more provident and reserved to restrain the *post-nati* than the *ante nati*; because during his majesty's time, being a prince of so approved wisdom and judgment, we need no better caution than the confidence we may repose in him; but in the future reigns of succeeding ages, our caution must be *in re*, and not *in persona*.

But, Mr. Speaker, to this I answer, that as we cannot expect a prince hereafter less like to err in respect of his judgment; so again, we cannot expect a prince so like to exceed, if I may so term it, in this point of beneficence to that nation, in respect of the occasion. For whereas all princes and all men are won either by merit or conversation, there is no appearance, that any of his majesty's descendants can have either of these causes of bounty towards that nation in so ample degree as his majesty hath. And these be the two objections, which seemed to me most material, why the *post-nati* should be left free, and not be concluded in the same restrictions with the *ante-nati*; whereunto you have heard the answers.

The two reasons, which I will use on the other side, are briefly these; the one, being a reason of common sense; the other, a reason of estate.

We see, Mr. Speaker, the time of the nativity is in most cases principally regarded. In nature, the time of planting and setting is chiefly observed; and we see the astrologers pretend to judge of the fortune of the party by the time of the nativity. In laws, we may not unftly apply the case of legitimation to the case of naturalization; for it is true, that the common canon-law doth put the *ante-natus* and the *post-natus* in one degree. But when it was moved to the parliament of England, *Barones una voce responderunt, Nolumus leges Angliæ mutare*. And though it must be confessed, that the *ante-nati* and *post-nati* are in the same degree in dignities; yet were they never so in abilities: for no man doubts, but the son of an earl or baron, before his creation or call, shall inherit the dignity, as well as the son born after. But the son of an attainted person, born before the attainder, shall not inherit, as the after born shall, notwithstanding charter of pardon.

The reason of estate is, that any restriction of the *ante-nati* is temporary, and expireth with this generation; but if you make it in the *post-nati* also, you do but in substance pen a perpetuity of separation.

Mr. Speaker, in this point I have been short, because I little expected this doubt; as to point of convenience; and therefore will not much labour, where I suppose there is no greater opposition.

CERTAIN



( 657 )

CERTAIN

## CONSIDERATIONS

TOUCHING THE

# PLANTATION

IN

IRELAND.

Presented to his MAJESTY, 1606.

IT seemeth God hath reserved to your majesty's times two works, which amongst the works of kings have the supreme pre-eminence; the union, and plantation of kingdoms. For although it be a great fortune for a king to deliver or recover his kingdom from long continued calamities: yet in the judgment of those that have distinguished of the degrees of sovereign honour, to be a founder of estates or kingdoms, excelleth all the rest. For as in arts and sciences, to be the first inventor is more than to illustrate or amplify: and as in the works of God, the creation is greater than the preservation; and as in the works of nature, the birth and nativity is more than the continuance; so in kingdoms, the first foundation or plantation is of more noble dignity and merit than all that followeth. Of which foundations there being but two kinds; the first, that maketh one of more; and the second, that maketh one of none; the latter resembling the creation of the world, which was *de nihilo ad quid*; and the former, the edification of the church, which was *de multiplici ad simplex*, *vel ad unum*: it hath pleased the divine providence, in singular favour to your majesty, to put both these kinds of foundations or regenerations into your hand; the one, in the union of the island of Britain; the other, in the plantation of great and noble parts of the island of Ireland: which enterprises being once happily accomplished, then that which was uttered by one of the best orators, in one of the worst verses, *O fortunatam natam me consule Roman*; may be far more truly and properly applied to your majesty's acts; *natam te rege Britanniam; natam Hiberniam*: for he spake improperly of deliverance and preservation; but in these acts of yours it may be verified more naturally. For indeed unions and plantations are the very nativities or birth-days of kingdoms: wherein likewise your majesty hath yet a fortune extraordinary, and differing from former examples in the same kind. For most part of unions and plantations of kingdoms have been founded in the effusion of blood; but your majesty shall build *in solo pura*, *et in area pura*, that shall need no sacrifices expiatory for blood; and therefore, no doubt, under a higher and more assured blessing. Wherefore, as I adventured, when I was less known and less particularly bound to your majesty, than since by your undeserved favour I have been, to write somewhat touching the union, which your majesty was pleased to accept, and which since I have to my power seconded by my travels, not only in discourse, but in action: so I am thereby encouraged to do the like, touching this matter of plantation; hoping that your majesty will, through the weakness of my ability, discern the strength of my affection, and the honest and fervent desire I have to see your majesty's person, name, and times, blessed and exalted above those of your royal progenitors. And I was the rather invited this to do by the remembrance, that when the lord Chief Justice deceased, Popham, served in the place wherein I now serve, and afterwards in the attorney's place, he laboured greatly in the last project, touching the plantation of Munster: which nevertheless, as it seemeth, hath given more



## OF THE PLANTATION IN IRELAND.

light by the errors thereof, what to avoid, than by the direction of the same what to follow.

First therefore, I will speak somewhat of the excellency of the work; and then, of the means to compass and effect it.

For the excellency of the work, I will divide it into four noble and worthy consequences that will follow thereupon.

The first of the four, is honour; whereof I have spoken enough already, were it not that the harp of Ireland puts me in mind of that glorious emblem or allegory, wherein the wisdom of antiquity did figure and shadow out works of this nature. For the poets feigned, that Orpheus by the virtue and sweetness of his harp did call and assemble the beasts and birds, of their nature wild and savage, to stand about him, as in a theatre; forgetting their affections of fierceness, of lust, and of prey; and listening to the tunes and harmonies of the harp; and soon after called likewise the stones and woods to remove, and stand in order about him: which fable was anciently interpreted of the reducing and plantation of kingdoms; when people of barbarous manners are brought to give over and discontinue their customs of revenge and blood, and of dissolute life, and of theft, and of rapine; and to give ear to the wisdom of laws and governments; whereupon immediately followeth the calling of stones for building and habitation; and of trees for the seats of houses, orchards, and enclosures, and the like. This work therefore, of all other most memorable and honourable, your majesty hath now in hand; especially, if your majesty join the harp of David, in casting out the evil spirit of superstition, with the harp of Orpheus, in casting out desolation and barbarism.

The second consequence of this enterprize, is the avoiding of an inconvenience, which commonly attendeth upon happy times, and is an evil effect of a good cause. The revolution of this present age seemeth to incline to peace, almost generally in these parts; and your majesty's most christian and virtuous affections do promise the same more especially to these your kingdoms. An effect of peace in fruitful kingdoms (where the flock of people, receiving no consumption nor diminution by war, doth continually multiply and increase) must in the end be a surcharge or overflow of people more than the territories can well maintain; which many times, insinuating a general necessity and want of means into all estates, doth turn external peace into internal troubles and seditions. Now what an excellent diversion of this inconvenience is ministered (by God's providence) to your majesty in this plantation of Ireland? wherein so many families may receive sustentations and fortunes; and the discharge of them also out of England and Scotland may prevent many seeds of future perturbations: so that it is, as if a man were troubled for the avoidance of water from the place where he hath built his house, and afterwards should advise with himself to cast those waters, and to turn them into fair pools or streams, for pleasure, provision, or use. So shall your majesty in this work have a double commodity, in the avoidance of people here, and in making use of them there.

The third consequence is the great safety that is like to grow to your majesty's estate in general by this act; in discomfiting all hostile attempts of foreigners, which the weakness of that kingdom hath heretofore invited: wherein I shall not need to fetch reasons afar off, either for the general or particular. For the general, because nothing is more evident than that, which one of the Romans said of Peloponnesus: *Tessudo intra tegumen tuta est*; the tortoise is safe within her shell: but if she put forth any part of her body, then it endangereth not only the part which is so put forth, but all the rest. And so we see in armour, if any part be left naked, it puts in hazard the whole person. And in the natural body of man, if there be any weak or affected part, it is enough to draw rheums or malign humours unto it, to the interruption of the health of the whole body.

And for the particular, the example is too fresh, that the indisposition of that kingdom hath been a continual attractive of troubles and infections upon this estate; and though your majesty's greatness doth in some sort discharge this fear, yet with your increase of power it cannot be, but envy is likewise increased.

The



The fourth and last consequence is the great profit and strength which is like to redound to your crown, by the working upon this unpolished part thereof: whereof your majesty (being in the strength of your years) are like, by the good pleasure of almighty God, to receive more than the first fruits; and your posterity a growing and springing vein of riches and power. For this island being another Britain, as Britain was said to be another world, is endowed with so many dowers of nature (considering the fruitfulness of the soil, the ports, the rivers, the fishings, the quarries, the woods, and other materials; and especially the race and generation of men, valiant, hard, and active) as it is not easy, no not upon the continent, to find such confluence of commodities, if the hand of man did join with the hand of nature. So then for the excellency of the work, in point of honour, policy, safety, and utility, here I cease.

For the means to effect this work, I know your majesty shall not want the information of persons expert and industrious, which have served you there, and know the region: nor the advice of a grave and prudent council of estate here; which know the pulses of the hearts of people, and the ways and passages of conducting great actions: besides that which is above all, which is that fountain of wisdom and universality which is in yourself: yet notwithstanding in a thing of so publick a nature, it is not amiss for your majesty to hear variety of opinion: for, as Demosthenes saith well, the good fortune of a prince or state doth sometimes put a good motion into a fool's mouth. I do think therefore the means of accomplishing this work consisteth of two principal parts. The first, the invitation and encouragement of undertakers: the second, the order and policy of the project itself. For as in all engines of the hand, there is somewhat that giveth the motion and force, and the rest serveth to guide and govern the same: so it is in these enterprises or engines of estate. As for the former of these, there is no doubt, but next unto the providence and finger of God, which writeth these virtuous and excellent desires in the tables of your majesty's heart; your authority and your affection is *primus motor* in this cause: and therefore the more strongly and fully your majesty shall declare yourself in it, the more shall you quicken and animate the whole proceeding. For this is an action, which as the worthiness of it doth bear it, so the nature of it requireth it to be carried in some height of reputation, and sit, in mine opinion, for pulpits and parliaments, and all places to ring and resound of it. For that which may seem vanity in some things (I mean matter of fame) is of great efficacy in this case.

But now let me descend to the inferior spheres, and speak what co-operation in the subjects or undertakers may be raised and kindled, and by what means. Therefore to take plain grounds, which are the surest: all men are drawn into actions by three things, pleasure, honour, and profit. But before I pursue these three motives, it is fit in this place to interlace a word or two of the quality of the undertakers; wherein my opinion simply is, that if your majesty shall make these portions of land, which are to be planted, as rewards or as suits, or as fortunes for those that are in want, and are likeliest to seek after them; that they will not be able to go through with the charge of good substantial plantations, but will *deserere in opere medio*; and then this work will succeed, as Tacitus saith, *acribus initiis, sine incurio*. So that this must rather be an adventure for such as are full, than a setting up of those that are low of means: for those men are fit indeed to perform these undertakings, which were fit to purchase dry reversions after lives or years, or such as were fit to put out money upon long returns.

I do not say, but that I think the undertakers themselves will be glad to have some captains, or men of service intermixed among them for their safety; but I speak of the generality of undertakers, which I wish were men of estate and plenty.

Now therefore it followeth well to speak of the aforesaid three motives; for it will appear the more, how necessary it is to allure by all means undertakers; since those men will be least fit, which are like to be most in appetite of themselves; and those most fit, which are like least to desire it.



First therefore, for pleasure: in this region or tract of soil, there are, no warm winters, nor orange-trees, nor strange beasts, or birds, or other points of curiosity or pleasure, as there are in the Indies and the like: so as there can be found no foundation made upon matter of pleasure, otherwise than that the very desire of novelty and experiment in some stirring natures may work somewhat; and therefore it is the other two points, of honour and profit, whereupon we are wholly to rest.

For honour or countenance, if I shall mention to your majesty, whether in wisdom you shall think convenient, the better to express your affection to the enterprise, and for a pledge thereof, to add the earldom of Ulster to the prince's titles, I shall but learn it out of the practice of king Edward I. who first used the like course, as a mean the better to restrain the country of Wales: and I take it, the prince of Spain hath the addition of a province in the kingdom of Naples; and other precedents I think there are: and it is like to put more life and encouragement into the undertakers.

Also considering the large territories which are to be planted, it is not unlike your majesty will think of raising some nobility there; which if it be done merely upon new titles of dignity, having no manner of reference to the old; and if it be done also without putting too many portions into one hand; and lastly, if it be done without any great franchises or commands, I do not see any peril can ensue thereof: as on the other side, it may draw some persons of great estate and means into the action, to the great furtherance and supply of the charges thereof.

And lastly for knighthood, to such persons as have not attained it; or otherwise knighthood, with some new difference and precedence, it may no doubt work with many. And if any man think that these things which I propound, are *aliquid minus* for the proportion of this action, I confess plainly, that if your majesty will have it really and effectually performed, my opinion is, you cannot bestow too much sun-shine upon it. For *lunae radius non naturaeis bonis*. Thus much for honour.

For profit, it will consist in three parts:

First, The easy rates that your majesty shall be pleased to give the undertakers of the land they shall receive.

Secondly, The liberties which you may be pleased to confer upon them. When I speak of liberties, I mean not liberties of jurisdiction; as counties palatine, or the like (which it seemeth hath been the error of the ancient donations and plantations in that country) but I mean only liberties tending to commodity; as liberty to transport any of the commodities growing upon the countries newly planted; liberty to import from hence all things appertaining to their necessary use, custom-free; liberty to take timber or other materials in your majesty's woods there, and the like.

The third is, ease of charge; that the whole mass of charge doth not rest upon the private purse of the undertakers.

For the two former of these, I will pass them over; because in that project, which with good diligence and providence hath been presented to your majesty by your ministers of that kingdom, they are in my opinion well handled.

For the third, I will never despair, but that the parliament of England, if it may perceive, that this action is not a flash, but a solid and settled pursuit, will give aid to a work so religious, so politic, and so profitable. And the distribution of charge (if it be observed) falleth naturally into three kinds of charge, and every of those charges respectively ought to have its proper fountain and issue. For as there proceedeth from your majesty's royal bounty and munificence, the gift of the land, and the other materials; together with the endowment of liberties; and as the charge which is private, as building of houses, stocking of grounds, victual, and the like, is to rest upon the particular undertakers; so whatsoever is publick, as building of churches, waling of towns, town-houses, bridges, causeways, or highways, and the like, ought not so properly to lie upon particular persons, but to come from the publick estate of this kingdom; to



which this work is like to return so great an addition of glory, strength, and commodity.

For the project itself, I shall need to speak the less, in regard it is so considerably digested already for the county of Tyrone : and therefore my labour shall be but in those things wherein I shall either add to, or dissent from that which is set down ; which will include five points or articles.

First, they mention a commission for this plantation : which of all things is most necessary, both to direct, and appease controversies, and the like.

To this I add two propositions : the one, that which perhaps is meant, though not expressed, that the commissioners should for certain times reside and abide in some habitable town of Ireland, near in distance to the country where the plantation shall be ; to the end, both that they may be more at hand, for the execution of the parts of their commission ; and withal it is like, by drawing a course of people and tradesmen to such towns, it will be some help and commodity to the undertakers for things they shall stand in need of : and likewise, it will be a more safe place of receipt and store, wherein to unlade and deposite such provisions as are after to be employed.

The second is, that your majesty would make a correspondency between the commission there, and a council of plantation here ; wherein I warrant myself by the precedent of the like council of plantation for Virginia ; an enterprise in my opinion differing as much from this, as Amadis de Gaul differs from Caesar's Commentaries. But when I speak of a council of plantation, I mean some persons chosen by way of reference, upon whom the labour may rest, to prepare and report things to the council of estate here, that concern that business. For although your majesty have a grave and sufficient council in Ireland ; from whom, and upon whom, the commissioners are to have assistance and dependance ; yet that supplies not the purpose whereof I speak. For considering, that upon the advertisements, as well of the commissioners, as of the council of Ireland itself, there will be many occasions to crave directions from your majesty, and your privy council here, which are busied with a world of affairs ; it cannot but give greater expedition, and some better perfection unto such directions and resolutions, if the matters may be considered of aforehand by such, as may have a continual care of the cause. And it will be likewise a comfort and satisfaction to some principal undertakers, if they may be admitted of that council.

Secondly, There is a clause wherein the undertakers are restrained, that they shall execute the plantation in person ; from which I must dissent, if I will consent with the grounds I have already taken. For it is not probable that men of great means and plentiful estates will endure the travel, diseasements, and adventures of going thither in person ; but rather, I suppose, many will undertake portions as an advancement for their younger children or kinsfolks ; or for the sweetness of the expectation of a great bargain in the end, when it is overcome. And therefore, it is like they will employ sons, kinsfolks, servants, or tenants, and yet be glad to have the estate in themselves. And it may be some again will join their purses together, and make as it were a partnership or joint-adventure, and yet man forth some one person by consent, for the executing of the plantation.

Thirdly, There is a main point, wherein I fear the project made hath too much of the line and compass, and will not be so natural and easy to execute, nor yet so politick and convenient : and that is, that the buildings should be *scattered* upon every portion ; and the castle or principal house should draw the tenements and farms about it as it were into villages, hamlets, or endships ; and that there should be only four corporate towns for the artificers and tradesmen.

My opinion is, that the building be altogether in towns, to be compounded as well of husbandries as of arts. My reasons are,

First, When men come into a country vast, and void of all things necessary for the use of man's life, if they set up together in a place, one of them will the better supply the wants of another : work-folks of all sorts will be the more continually on work without loss of time ; when, if work fail in one place, they may have it fast by ; the ways will be made more passable for carriages to those seats or towns, than they can be to a number of dispersed solitary places ; and



infinite other helps and easements, scarcely to be comprehended in cogitation, will ensue in vicinity and society of people; whereas if they build scattered (as is projected) every man must have a *cornucopia* in himself for all things he must use; which cannot but breed much difficulty, and no less waste.

Secondly, it will draw out of the inhabited country of Ireland provisions and victuals, and many necessaries, because they shall be sure of utterance; whereas in the dispersed habitations, every man must reckon only upon that that he brings with him, as they do in provisions of ships.

Thirdly, the charge of bawnes, as they call them, to be made about every castle or house, may be spared, when the habitations shall be congregated only into towns.

And lastly, it will be a means to secure the country against future perils, in case of any revolt and defection; for by a slight fortification of no great charge, the danger of any attempts of kierns and sword-men may be prevented; the omission of which point, in the last plantation of Munster, made the work of years to be but the spoil of days. And if any man think it will draw people too far off, from the grounds they are to labour, it is to be understood, that the number of the towns be increased accordingly; and likewise, the situation of them be as in the center, in respect of the portions assigned to them: for in the champaign countries of England, where the habitation useth to be in towns, and not dispersed, it is no new thing to go two miles off to plough part of their grounds; and two miles compass will take up a good deal of country.

The fourth point, is a point wherein I shall differ from the project rather in quantity and proportion, than in matter. There is allowed to the undertaker, within the five years of restraint, to alien a third part in fee farm, and to demise another third for forty years: which I fear will mangle the portions, and will be but a shift to make money of two parts; whereas, I am of opinion, the more the first undertaker is forced to keep in his own hands, the more the work is like to prosper. For first, the person liable to the state here to perform the plantation, is the immediate undertaker. Secondly, the more his profit dependeth upon the annual and springing commodity, the more sweetness he will find in putting forward manurance and husbanding of the grounds, and therefore is like to take more care of it. Thirdly, since the natives are excluded, I do not see that any persons are like to be drawn over of that condition, as are like to give fines and undertake the charge of building: for I am persuaded that the people transported will consist of gentlemen and their servants, and of labourers and binds, and not of yeomen of any wealth; and therefore the charge of building, as well of the tenements and farms, as of the capital houses themselves, is like to rest upon the principal undertakers, which will be recompensed in the end to the full, and with much advantage, if they make no long estates or leases.

And therefore this article to receive some qualification.

Fifthly, I should think it requisite that men of experience in that kingdom should enter into some particular consideration of the charges and provisions of all kinds, that will be incident to the plantation; to the end, that thereupon some advice may be taken for the furnishing and accommodating them most conveniently, aiding private industry and charge with publick care and order.

Thus I have expressed to your majesty those simple and weak cogitations, which I have had in myself touching this cause, wherein I most humbly desire your pardon, and gracious acceptance of my good affection and intention. For I hold it for a rule, that there belongeth to great monarchs, from faithful servants, not only the tribute of duty, but the oblations of cheerfulness of heart. And so I pray the Almighty to bless this great action, with your majesty's care; and your care with happy success.

A REPORT



R E P O R T

M.A.D.E.B.Y.

Sir F R A N C I S B A C O N, Kt.

In the HOUSE of COMMONS,

Of a speech delivered by the earl of Salisbury; and another speech delivered by the earl of Northampton, at a conference concerning the

Petition of the merchants upon the Spanish Grievances.

[Parliament 5 JACOBI.]

AND it please you (Mr. Speaker) I do not find myself any ways bound to report that which passed at the last conference touching the Spanish grievances, having been neither employed to speak, nor appointed to report in that cause. But because it is put upon me by a silent expectation, grounded upon nothing (that I know) more than that I was observed diligently to take notes; I am content (if that provision which I made for mine own remembrance may serve this house for a report) not to deny you that I have in haste bound up. It is true, that one of his majesty's principal counsellors in causes of estate did use a speech that contained a world of matter; but how I shall be able to make a globe of that world, therein I fear mine own strength.

His lordship took the occasion of this, which I shall now report, upon the answer which was by us made to the amendments propounded upon the bill of hostile laws; quitting that business with these few words; that he would discharge our expectation of reply, because their lordships had no warrant to dispute. Then continuing his speech, he fell into this other cause, and said; that being now to make answer to a proposition of ours, as we had done to one of theirs, he wished it could be passed over with like brevity. But he did foresee his way, that it would prove not only long, but likewise hard to find, and hard to keep; this cause being so to be carried, as above all no wrong be done to the king's sovereignty and authority: and in the second place, no misunderstanding do ensue between the two houses. And therefore that he hoped his words should receive a benign interpretation; knowing well that pursuit and drift of speech, and multitude of matter, might breed words to pass from him beyond the compass of his intention: and therefore he placed more assurance and caution in the innocency of his own meaning, and in the experience of our favours, than in any his wariness or watchfulness over his own speech.

This respective preface used, his lordship descended to the matter itself; which he divided into three considerations: for he said he would consider of the petition,

First, As it proceeded from the merchants.

Secondly, As from them it was offered to the lower house.

And thirdly, As from the lower house it was recommended to the higher house.

In the first of these considerations there fell out naturally a subdivision into the persons of the petitioners, and the matter and parts of the petition. In the persons of the merchants his lordship made (as I have collected them) in number eight observations, whereof the three first respected the general condition of merchants; and the five following were applied to the particular circumstances of the merchants now complaining.

His lordship's first general observation was, that merchants were of two sorts; the one sought their fortunes (as the verse saith) *per saxa, per ignes*; and, as it is said in the same place, *extremos currit mercator ad indos*; subjecting themselves to weather and tempest; to absence, and, as it were, exile, out of their native countries; to arrest in entrances of war; to foreign injustice and rigor in times of peace; and many other sufferances and adventures. But that there were others that



that took a more safe, but a less generous course in raising their fortunes. He taxed none, but did attribute much more respect to the former.

The second general observation which his lordship made was, that the complaints of merchants were usually subject to much error, in regard that they spoke (for the most part) but upon information; and that carried through many hands; and of matters done in remote parts; so as a false or factious factor might oftentimes make great tragedies upon no great ground. Whereof, towards the end of his speech, he brought an instance of one trading into the Levant, that complained of an arrest of his ship, and possessed the council-table with the same complaint in a vehement and bitter fashion; desiring and pressing some present and expostulatory letters touching the same. Whereupon some counsellors, well acquainted with the like heats, and forwardness in complaints, happened to say to him out of conjecture, and not out of any intelligence, "What will you say "if your ship, which you complain to be under arrest, be now under sail in way "homewards?" Which fell out accordingly; the same person confessing, six days after, to the lords, that she was indeed in her way homewards.

The third general observation which his lordship made was this, in effect; that although he granted that the wealth and welfare of the merchant was not without a sympathy with the general stock and state of a nation, especially an island; yet nevertheless, it was a thing too familiar with the merchant, to make the case of his particular profit, the publick case of the kingdom.

There follow the particular observations, which have a reference and application to the merchants that trade to Spain and the Levant; wherein his lordship did first honourably and tenderly acknowledge, that their grievances were great, that they did multiply, and that they do deserve compassion and help; but yet nevertheless, that he must use that loving plainness to them as to tell them, that in many things they were authors of their own miseries. For since the dissolving of the company, which was termed the monopoly, and was set free by the special instance of this house, there hath followed such a confusion and relaxation in order and government amongst them, as they do not only incur many inconveniences, and commit many errors; but in the pursuits of their own remedies and suits they do it so impolitickly, and after such a fashion, as, except lieger ambassadors (which are the eyes of kings in foreign parts) should leave their sentinel, and become merchants' factors and solicitors, their causes can hardly prosper. And, which is more, such is now the confusion in the trade, as shop-keepers and handicraftsmen become merchants there; who being bound to no orders, seek base means, by gifts and bribery, to procure favours at the hands of officers there. So as the honest merchant, that trades like a substantial merchant, and loves not to take servile courses to buy the right due to him by the amity of the princes, can have no justice without treading in their steps.

Secondly, His lordship did observe some improbability that the wrongs should be so great, considering trading into those parts was never greater; whereas if the wrongs and griefs were so intolerable and continual as they propound them and voiced them, it would work rather a general discouragement and coldness of trade in fact, than an earnest and hot complaint in words.

Thirdly, His lordship did observe, that it is a course (howsoever it may be with a good intent, yet) of no small presumption, for merchants upon their particular grievances to urge things tending to a direct war, considering that nothing is more usual in treaties, than that such particular damages and molestations of subjects are left to a form of justice to be righted: and that the more high articles do retain nevertheless their vigour inviolably; and that the great bargain of the kingdom for war and peace may in no wise depend upon such petty forfeitures, no more than in common assurance between man and man it were fit that, upon every breach of covenants, there should be limited a re-entry.

Fourthly, His lordship did observe, in the manner of preferring their petition, they had inverted due order, addressing themselves to the foot, and not to the head. For, considering that they prayed no new law for their relief, and that it concerned matter of inducement to war or peace, they ought to have begun with his majesty; unto whose royal judgment, power, and office did properly belong the discerning of that which was desired, the putting in act of that which might be granted, and the thanks for that which might be obtained.



Fifthly, His lordship did observe, that as they had not preferred their petition as it should be, so they had not pursued their own direction as it was. For having directed their petition to the king, the lords spiritual and temporal, and the commons in parliament assembled, it imported, as if they had offered the like petition to the lords; which they never did: contrary not only to their own direction, but likewise to our conceit, who pre-supposed (as it should seem by some speech that passed from us at a former conference) that they had offered several petitions of like tenor to both houses. So have you now those eight observations, part general, part special, which his lordship made touching the persons of those which exhibited the petition, and the circumstances of the same.

For the matter of the petition itself, his lordship made this division, that it consisted of three parts.

First, Of the complaints of wrongs in fact.

Secondly, Of the complaints of wrongs in law, as they may be truly termed, that is, of the inequality of laws which do regulate the trade.

And thirdly, The remedy desired by letters of mart.

The wrongs in fact receive a local distribution of three. In the trade to Spain, in the trade to the West-Indies, and in the trade to the Levant.

Concerning the trade to Spain; although his lordship did use much signification of compassion of the injuries which the merchants received; and attributed so much to their profession and estate, as from such a mouth in such a presence they ought to receive for a great deal of honour and comfort (which kind of demonstration he did interlace throughout his whole speech, as proceeding *ex abundantia cordis*) yet nevertheless he did remember four excusations, or rather extenuations of those wrongs.

The first was, that the injustices complained of were not in the highest degree, because they were delays and hard proceedings, and not inique sentences, or definitive condemnations: wherein I called to mind what I heard a great bishop say, that courts of justice, though they did not turn justice into wormwood by corruption, yet they turned it into vinegar by delays, which soured it. Such a difference did his lordship make, which, no question, is a difference *secundum magis et minus*.

Secondly, His lordship ascribed these delays, not so much to malice or alienation of mind towards us, as to the nature of the people and nation, which is proud and therefore dilatory: for all proud men are full of delays, and must be waited on; and especially to the multitudes and diversities of tribunals and places of justice, and the number of the king's councils, full of referrings, which ever prove of necessity to be deferring; besides the great distance of territories: all which have made the delays of Spain to come into a by-word through the world. Wherein I think his lordship might allude to the proverb of Italy, *Mi venga la morte di Spagna*, Let my death come from Spain, for then it is sure to be long a coming.

Thirdly, His lordship did use an extenuation of these wrongs, drawn from the nature of man (*nemo subito fingitur.*) For that we must make an account, that though the fire of enmity be out between Spain and us, yet it vapoureth: the utter extinguishing whereof must be the work of time.

But lastly, his lordship did fall upon that extenuation, which of all the rest was most forcible; which was, that many of these wrongs were not sustained without some asperson of the merchants own fault in ministering the occasion, which grew chiefly in this manner.

There is contained an article in the treaty between Spain and us, that we shall not transport any native commodities of the Low Countries into Spain; nay more, that we shall not transport any *opificia*, manufactures of the same countries: so that if an English cloth take but a dye in the Low Countries, it may not be transported by the English. And the reason is, because even those manufactures, although the materials come from other places, do yield unto them a profit and sustentation, in regard their people are set on work by them; they have a gain likewise in the price; and they have a custom in the transporting. All which the policy of Spain is to debar them of; being no less desirous to suffocate



the trade of the Low Countries, than to reduce their obedience. This article the English merchant either doth not or will not understand; but being drawn with his three-fold cord of love, hate, and gain, they do venture to transport the Low Country commodities of these natures, and so draw upon themselves these arrests and troubles.

For the trade to the Indies, his lordship did discover unto us the state of it to be thus: the policy of Spain doth keep that treasury of theirs under such lock and key, as both confederates, yea, and subjects, are excluded of trade into those countries; inasmuch as the French king, who hath reason to stand upon equal terms with Spain, yet nevertheless is by express capitulation debarred. The subjects of Portugal, whom the state of Spain hath studied by all means to content, are likewise debarred: such a vigilant dragon is there that keepeth this golden fleece; yet nevertheless, such was his majesty's magnanimity in the debate and conclusion of the last treaty, as he would never condescend to any article importing the exclusion of his subjects from that trade; as a prince that would not acknowledge that any such right could grow to the crown of Spain by the donative of the pope, whose authority he disclaimeth; or by the title of a dispersed and punctual occupation of certain territories in the name of the rest; but stood firm to reserve that point in full question to farther times and occasions; so as it is left by the treaty in suspense, neither debarred nor permitted: the tenderness and point of honour whereof was such, as they that went thither must run their own peril. Nay farther, his lordship affirmed, that if yet at this time his majesty would descend to a course of entreaty for the release of the arrests in those parts, and so confess an exclusion, and quit the point of honour, his majesty might have them forthwith released. And yet his lordship added, that the offences and scandals of some had made this point worse than it was, in regard that this very last voyage to Virginia, intended for trade and plantation, where the Spaniard hath no people nor possession, is already become infamed for piracy. Witness Bingley, who first insinuating his purpose to be an actor in that worthy action of enlarging trade and plantation, is become a pirate, and hath been so pursued, as his ship is taken in Ireland, though his person is not yet in hold.

For the trade to the Levant, his lordship opened unto us that the complaint consisted in effect but of two particulars: the one, touching the arrest of a ship called the Trial, in Sicily; the other, of a ship called the Vineyard, in Sardinia. The first of which arrests was upon pretence of piracy: the second, upon pretence of carrying ordnance and powder to the Turk. That process concerning the trial had been at the merchants instance drawn to a review in Spain, which is a favour of exceeding rare precedent, being directly against the liberties and privileges of Sicily. That of the Vineyard, notwithstanding it be of that nature, as (if it should be true) tendeth to the great dishonour of our nation (whereof hold hath been already taken by the French ambassador residing at Constantinople, who entered into a scandalous expostulation with his majesty's ambassador there; upon that and the like transportations of munition to the Turk) yet nevertheless there is an answer given, by letters from the king's ambassador lieger in Spain, that there shall be some course taken to give reasonable contentment in that cause, as far as may be: in both which ships (to speak truly) the greatest mass of loss may be included; for the rest are mean, in respect of the value of those two vessels. And thus much his lordship's speech comprehended concerning the wrongs in fact.

Concerning the wrongs in law; that is to say, the rigour of the Spanish laws extended upon his majesty's subjects that traffick thither, his lordship gave this answer. That they were no new statutes or edicts devised for our people, or our times; but were the ancient laws of that kingdom: *Sunt cuique mos*. And therefore, as travellers must endure the extremities of the climate, and temper of the air where they travel; so merchants must bear with the extremities of the laws, and temper of the estate where they trade. Whereunto his lordship added, That our own laws here in England were not exempted from the like complaints in foreign parts; especially in point of marine causes and depredations, and that same swift alteration of property, which is claimed by the admiralty



rally in case of goods taken in pirates hands. But yet that we were to understand thus much of the king of Spain's care and regard of our nation; that he had written his letters to all corregidores, officers of ports, and other his ministers, declaring his will and pleasure to have his majesty's subjects used with all freedom and favour; and with this addition, that they should have more favour when it might be shewed, than any other. Which words, howsoever the effects prove, are not suddenly to be requited with peremptory resolutions, till time declare the direct issue.

For the third part of the matter of the petition, which was the remedy sought by letters of mart, his lordship seemed desirous to make us capable of the inconvenience of that which was desired, by setting before us two notable exceptions thereunto: the one, that the remedy was utterly incompetent and vain; the other, that it was dangerous and pernicious to our merchants, and in consequence to the whole state.

For the weakness of the remedy, his lordship wished us to enter into consideration what the remedy was, which the statute of Henry the fifth (which was now sought to be put in execution) gave in this case: which was thus; That the party grieved should first complain to the keeper of the privy seal, and from him should take letters unto the party that had committed the spoil for restitution; and in default of restitution to be made upon such letters served, then to obtain of the chancellor letters of mart or reprisal: which circuit of remedy permitted nothing but endless and fruitless delay, in regard that the first degree prescribed was never likely to be effected: it being so wild a chace, as to serve process upon the wrong doer in foreign parts. Wherefore his lordship said, that it must be the remedy of state that must do good in this case; which useth to proceed by certificates, attestations, and other means of information; not depending upon a privy seal to be served upon the party, whom haply they must seek out in the West-Indies.

For the danger of the remedy, his lordship directed our considerations to take notice of the proportions of the merchants goods in either kingdom: as that the stock of goods of the Spaniard, which is within his majesty's power and distress, is a trifle; whereas the stock of English goods in Spain is a mass of mighty value. So as if this course of letters of mart should be taken to satisfy a few hot pursuitors here, all the goods of the English subjects in Spain shall be exposed to seizure and arrest; and we have little or nothing in our hands on this side to mend ourselves upon. And thus much, Mr. Speaker, is that which I have collected out of that excellent speech, concerning the first main part, which was the consideration of the petition as it proceeded from the merchant.

There followeth now the second part, considering the petition as it was offered in this house. Wherein his lordship, after an affectionate commemoration of the gravity, capacity, and duty, which he generally found in the proceedings of this house, desired us nevertheless to consider with him, how it was possible that the entertaining petitions concerning private injuries, and of this nature, could avoid these three inconveniences: the first, of injustice; the second, of derogation from his majesty's supreme and absolute power of concluding war or peace; and the third, of some prejudice in reason of estate.

For injustice, it is plain, and cannot be denied, that we hear but the one part: whereas the rule, *Audi alteram partem*, is not of the formality, but of the essence of justice: which is therefore figured with both eyes shut, and both ears open; because she should hear both sides, and respect neither. So that if we should hap to give a right judgment, it might be *justum*, but not *juste*, without hearing both parties.

For the point of derogation, his lordship said, he knew well we were no less ready to acknowledge than himself, that the crown of England was ever invested (amongst other prerogatives not disputable) of an absolute determination and power of concluding and making war and peace: which that it was no new donation, but of an ancient foundation in the crown, he would recite unto us a number of precedents in the reigns of several kings, and chiefly of those kings, which come nearest his majesty's own worthiness; wherein he said, that he would not put his credit upon cyphers and dates; because it was easy to mistake



the year of a reign, or number of a roll, but he would avouch them in substance to be perfect and true, as they are taken out of the records. By which precedents it will appear, that petitions made in parliament to kings of this realm, his majesty's progenitors, intermeddling with matter of war or peace, or inducement thereunto, received small allowance or success, but were always put off with dilatory answers; sometimes referring the matter to their council, sometimes to their letters, sometimes to their farther pleasure and advice, and such other forms; expressing plainly, that the kings meant to reserve matter of that nature entirely to their own power and pleasure.

In the eighteenth year of king Edward I. complaint was made by the commons, against the subjects of the earl of Flanders, with petition of redress. The king's answer was, *Rex nihil aliud potest, quam eodem modo petere*: that is, The king could do no more but make request to the earl of Flanders, as request had been made to him; and yet nobody will imagine but king Edward the first was potent enough to have had his reason of a count of Flanders by a war; and yet his answer was, *Nihil aliud potest*; as giving them to understand, that the entering into a war was a matter transcendent, that must not depend upon such controversies.

In the fourth year of king Edward III. the commons petitioned, that the king would enter into certain covenants and capitulations with the duke of Brabant; in which petition there was also inserted somewhat touching a money matter. The king's answer was, That for that which concerned the monies, they might handle and examine it; but touching the peace, he would do as to himself seemed good.

In the eighteenth year of king Edward III. the commons petitioned, that they might have the trial and proceeding with certain merchants strangers as enemies to the state. The king's answer was, It should remain as it did till the king had taken farther order.

In the forty-fifth year of king Edward III. the commons complained that their trade with the Easterlings was not upon equal terms (which is one of the points insisted upon in the present petition) and prayed an alteration and redcement. The king's answer was, It shall be so as occasion shall require.

In the fiftieth year of the same king, the commons petitioned to the king for remedy against the subjects of Spain, as they now do. The king's answer was, That he would write his letter for remedy. Here is letters of request, no letters of mart: *Nihil potest nisi eodem modo petere*.

In the same year the merchants of York petitioned in parliament against the Hollanders, and desired their ships might be stayed both in England and at Calais. The king's answer was; Let it be declared unto the king's council, and they shall have such remedy as is according to reason.

In the second year of king Richard II. the merchants of the sea-coast did complain of divers spoils upon their ships and goods by the Spaniard. The king's answer was, that with the advice of his council he would procure remedy.

His lordship cited two other precedents; the one, in the second year of king Henry IV. of a petition against the merchants of Genoa; the other, in the eleventh year of king Henry VI. of a petition against the merchants of the still-yard, which I omit, because they contain no variety of answer.

His lordship farther cited two precedents concerning other points of prerogative, which are likewise flowers of the crown; the one, touching the king's supremacy ecclesiastical, the other, touching the order of weights and measures. The former of them was in the time of king Richard II. at what time the commons complained against certain encroachments and usurpations of the pope; and the king's answer was, "The king hath given order to his council to treat with the bishops thereof." The other was in the eighteenth year of king Edward I. at which time complaint was made against uneven weights: and the king's answer was, *Vocentur partes ad placita regis, et fiat justitia*: whereby it appeared, that the kings of this realm still used to refer causes petitioned in parliament to the proper places of cognizance and decision. But for the matter of war and peace, as appears in all the former precedents, the kings ever kept it in *serinio pectoris*, in the shrines of their own breast, assisted and advised by their council of estate.

His



His lordship did conclude his enumeration of precedents with a notable precedent in the seventeenth year of king Richard II. a prince of no such glory nor strength; and yet when he made offer to the commons in parliament that they should take into their considerations matter of war and peace then in hand; the commons, in modesty, excused themselves, and answered, "The commons will not presume to treat of so high a charge." Out of all which precedents his lordship made this inference, that as *dies diem docet*, so by these examples wise men will be admonished to forbear those petitions to princes, which are not likely to have either a welcome hearing, or an effectual answer.

And for prejudice that might come of handling and debating matter of war and peace in parliament, he doubted not, but that the wisdom of this house did conceive upon what secret consideration and motives that point did depend. For that there is no king which will providently and maturely enter into a war, but will first balance his own forces; seek to anticipate confederacies and alliances, revoke his merchants, find an opportunity of the first breach, and many other points; which, if they once do but take wind, will prove vain and frustrate. And therefore that this matter, which is *arcanum imperii*, one of the highest mysteries of estate, must be suffered to be kept within the veil: his lordship adding, that he knew not well whether, in that, which he had already said out of an extreme desire to give us satisfaction, he had not communicated more particulars than perhaps was requisite. Nevertheless, he confessed, that sometimes parliaments have been made acquainted with matter of war and peace in a generality; but it was upon one of these two motives; when the king and council conceived, that either it was material to have some declaration of the zeal and affection of the people; or else when the king needed to demand moneys and aids for the charge of the wars; wherein if things did sort to war, we were sure enough to hear of it: his lordship hoping that his majesty would find in us no less readiness to support it than to persuade it.

Now, Mr. Speaker, for the last part; wherein his lordship considered the petition, as it was recommended from us to the upper house; his lordship delivered thus much from their lordships; that they would make a good construction of our desires, as those which they conceived did rather spring out of a feeling of the king's strength, and out of a feeling of the subjects wrongs; nay more, out of a wisdom and depth, to declare our forwardness, if need were, to assist his majesty's future resolutions (which declaration might be of good use for his majesty's service, when it should be blown abroad;) rather, I say, than that we did in any sort determine by this their overture, to do that wrong to his highness's supreme power, which haply might be inferred by those that were rather apt to make evil than good illations of our proceedings. And yet, that their lordships, for the reasons before made, must plainly tell us, that they neither could nor would concur with us, nor approve the court; and therefore concluded, that it would not be amiss for us, for our better contentment, to behold the conditions of the last peace with Spain, which were of a strange nature to him that duly observes them; no forces recalled out of the Low Countries; no new forces (as to volunteers) restrained to go thither; so as the king may be in peace, and never a subject in England but may be in war: and then to think thus with ourselves, that that king, which would give no ground in making his peace, will not lose any ground, upon just provocation, to enter into an honourable war. And that in the mean time we should know thus much, that there could not be more forcible negotiation on the king's part, but blows, to procure remedy of those wrongs; nor more fair promises on the king of Spain's part, to give contentment concerning the same; and therefore that the event must be expected.

And thus, Mr. Speaker, have I passed over the speech of this worthy lord, whose speeches (as I have often said) in regard of his place and judgment, are extraordinary lights to this house; and have both the properties of light, that is, conducting, and comforting. And although, Mr. Speaker, a man would have thought nothing had been left to be said, yet I shall now give you account of another speech, full of excellent matter and ornaments, and without iteration: which, nevertheless, I shall report more compendiously, because I will not offer



the speech that wrong, as to report it at large, when your minds percase and attentions are already wearied.

The other earl, who usually doth bear a principal part upon all important occasions, used a speech, first of preface, then of argument. In his preface he did deliver, that he was persuaded that both houses did differ, rather in credulity and belief, than in intention and desire: for it might be their lordships did not believe the information so far, but yet desired the reformation as much.

His lordship said farther, that the merchant was a state and degree of persons, not only to be respected, but to be prayed for, and graced them with the best additions; that they were the convoys of our supplies, the vents of our abundance, Neptune's alms-men, and fortune's adventurers. His lordship proceeded and said, this question was new to us, but ancient to them; assuring us, that the king did not bear in vain the device of the thistle, with the word, *Nemo me laessest impune*; and that as the multiplying of his kingdoms maketh him feel his own power; so the multiplying of our loves and affections made him to feel our griefs.

For the arguments or reasons, they were five in number, which his lordship used for satisfying us why their lordships might not concur with us in this petition. The first was the composition of our house, which he took in the first foundation thereof to be merely democratical, consisting of knights of shires, and burgesses of towns, and intended to be of those that have their residence, vocation, and employment in the places for which they serve: and therefore to have a private and local wisdom, according to that compass, and so not fit to examine or determine secrets of estate, which depend upon such variety of circumstances; and therefore added to the precedent formerly vouched, of the seventeenth of king Richard II. when the commons disclaimed to intermeddle in matter of war and peace; that their answer was, that they would not presume to treat of so high and variable a matter. And although his lordship acknowledged that there be divers gentlemen, in the mixture of our house, that are of good capacity and insight in matters of estate; yet that was the accident of the person, and not the intention of the place; and things were to be taken in the institution, not in the practice.

His lordship's second reason was, that both by philosophy and civil law *ordinatio belli et pacis est absoluti imperii*, a principal flower of the crown; which flowers ought to be so dear unto us, as we ought, if need were, to water them with our blood: for if those flowers should, by neglect, or upon facility and good affection, wither and fall, the garland would not be worth the wearing.

His lordship's third reason was, that kings did so love to imitate *primum mobile*, as that they do not like to move in borrowed motions: so that in those things that they do most willingly intend, yet they indure not to be prevented by request: whereof he did alledge a notable example in king Edward III. who would not hearken to the petition of his commons, that besought him to make the black prince, prince of Wales: but yet, after that repulse of their petition, out of his own mere motion he created him.

His lordship's fourth reason was, that it might be some scandal to step between the king and his own virtue; and that it was the duty of subjects rather to take honours from kings servants and give them to kings, than to take honours from kings and give them to their servants: which he did very elegantly set forth in the example of Joab, who, lying at the siege of Rabbah, and finding it could not hold out, writ to David to come and take the honour of taking the town.

His lordship's last reason was, that it may cast some aspersions upon his majesty; implying, as if the king slept out the sobs of his subjects until he was awaked with the thunderbolt of a parliament.

But his lordship's conclusion was very noble, which was with a protestation, that what civil threats, contestation, art, and argument, can do, hath been used already to procure remedy in this cause; and a promise, that if reason of state did permit, as their lordships were ready to spend their breath in the pleading of that we desire, so they would be ready to spend their bloods in the execution thereof.

This was the substance of that which passed.



( 671 )  
A CERTIFICATE to his MAJESTY,

Touching the projects of Sir STEPHEN PROCTOR relating to the

P E N A L L A W S.

*It may please your sacred Majesty,*

WITH the first free time from your majesty's service of more present dispatch, I have perused the projects of Sir Stephen Proctor, and do find it a collection of extreme diligence and inquisition, and more than I thought could have met in one man's knowledge. For though it be an easy matter to run over many offices and professions, and to note in them general abuses or defects; yet, nevertheless, to point at and trace out the particular and covert practices, shifts, devices, tricks, and, as it were, stratagems in the meaner sort of the ministers of justice or publick service, and to do it truly and understandingly, is a discovery whereof great good use may be made for your majesty's service and good of your people. But because this work, I doubt not, hath been to the gentleman the work of years, whereas my certificate must be the work, but of hours or days, and that it is commonly and truly said, that he that imbraceth much, strangeth and holdeth the less, and that propositions have wings, but operation and execution have leaden feet; I most humbly desire pardon of your majesty, if I do for the present only select some one or two principal points, and certify my opinion thereof; reserving the rest as a sheaf by me to draw out, at further time, further matter for your majesty's information for so much, as I shall conceive to be fit or worthy the consideration.

For that part therefore of these projects which concerneth penal laws, I do find the purpose and scope to be, not to press a greater rigour or severity in the execution of penal laws; but to repress the abuses in common informers, and some clerks and under-ministers, that for common gain partake with them: for if it had tended to the other point, I for my part should be very far from advising your majesty to give ear unto it. For as it is said in the psalm, *If thou, Lord, should be extreme to mark what is done amiss, who may abide it?* So it is most certain, that your people is so ensnared in a multitude of penal laws, that the execution of them cannot be borne. And as it followeth; *But with thee is mercy, that thou mayest be feared*: so it is an intermixture of mercy and justice, that will bring you fear and obedience: for too much rigour makes people desperate. And therefore to leave this, which was the only blemish of King Henry VIII's reign, and the unfortunate service of Empson and Dudley, whom the people's curses, rather than any law, brought to overthrow; the other work is a work not only of profit to your majesty, but of piety towards your people. For if it be true in any proportion, that within these five years of your majesty's happy reign, there hath not five hundred pounds benefit come to your majesty by penal laws (the fines of the Star-chamber, which are of a higher kind, only except) and yet, nevertheless, there hath been a charge of at least fifty thousand pounds, which hath been laid upon your people, it were more than time it received a remedy.

This remedy hath been sought by divers statutes, as principally by a statute in 18. and another of 31. of the late queen of happy memory. But I am of opinion that the appointing of an officer proper for that purpose, will do more good than twenty statutes, and will do that good effectually, which these statutes aim at intentionally.

And this I do allow of the better, because it is none of those new superintendencies, which I see many times offered upon pretence of reformation, as if judges did not their duty, or ancient and sworn officers did not their duty and the like: but it is only to set a *custos* or watchman, neither over judges nor clerks, but only over a kind of people that cannot be sufficiently watched of



overlooked, and that is, the common promoters or informers; the very awe and noise whereof will do much good, and the practice much more.

I will therefore set down first, what is the abuse or inconvenience, and then what is the remedy which may be expected from the industry of this officer. And I will divide it into two parts, the one, for that, that may concern the case of your people (for with that will I crave leave to begin, as knowing it to be principal in your majesty's intention) and the other for that, that may concern your majesty's benefit.

### Concerning the case of his Majesty's subjects, polled and vexed by common informers.

#### *The abuses or inconveniencies.*

1. An informer exhibits an information, and in that one information he will put an hundred several subjects of this information. Every one shall take out copies, and every one shall put in his several answer. This will cost perhaps a hundred marks: that done, no further proceeding. But the clerks have their fees, and the informer hath his dividend for bringing the water to the mill.

It is to be noted, that this vexation is not met with by any statute. For it is no composition, but a discontinuance; and in that case there is no penalty, but costs: and the poor subject will never sue for his costs, lest it awake the informer to revive his information, and so it escapeth clearly.

2. Informers receive pensions of divers persons to forbear them. And this is commonly of principal offenders, and of the wealthiest sort of tradesmen. For if one tradesman may presume to break the law, and another not, he will be soon richer than his fellows. As for example, if one draper may use tenters, because he is in fee with an informer, and others not, he will soon outstrip the good tradesman that keeps the law.

And if it be thought strange that any man should seek his peace by one informer, when he lieth open to all; the experience is otherwise: for one informer will bear with the friend of another, looking for the like measure.

And besides, they have devices to get priority of information, and to put in an information *de bene esse*, to prevent others, and to protect their pensioners.

And if it be said this is a pillory matter to the informer, and therefore he will not attempt it; although therein the statute is a little doubtful: yet, if hanging will not keep thieves from stealing, it is not pillory will keep informers from polling.

#### *The remedies by the industry of the officer.*

1. The officer by his diligence finding this case, is to inform the court thereof, who thereupon may grant good costs against the informer, to every of the subjects vexed: and withal not suffer the same informer to revive his information against any of them; and lastly, fine him, as for a misdemeanor and abuse of justice: and by that time a few of such examples be made, they will be soon weary of that practice.

2. This is an abuse that appeareth not by any proceeding in court, because it is before suit commenced, and therefore requireth a particular enquiry.

But when it shall be the care and cogitation of one man to overlook informers, these things are easily discovered: for let him but look who they be that the informer calls in question, and hearken who are of the same trade in the same place and are spared, and it will be easy to trace a bargain.

In this case, having discovered the abuse, he ought to inform the barons of the exchequer, and the king's learned counsel, that by the Star-chamber, or otherwise, such taxers of the king's subjects may be punished.

And



And herein Sir Stephen addeth a notable circumstance: that they will peruse a trade, as of brewers or victuallers, and if any stand out, and will not be in fee, they will find means to have a dozen informations come upon him at once.

3. The subject is often for the same offence vexed by several informations: sometimes the one informer not knowing of the other; and often by confederacy, to weary the party with charge: upon every of which goeth process, and of every of them he must take copies, and make answers, and so relieve himself by motion of the court if he can; all which multiplieth charge and trouble.

3. The officer keeping a book of all the informations put in, with a brief note of the matter, may be made acquainted with all informations to come in: and if he find a precedent for the same cause, he may inform some of the barons, that by their order the receiving of the latter may be stayed without any charge to the party at all; so as it appear by the due prosecution of the former, that it is not a suit by collusion to protect the party.

### Concerning the King's benefit, which may grow by a moderate prosecution of some penal laws.

#### *The abuses or inconveniencies.*

1. After an information is exhibited and answered (for so the statute requires) the informer for the most part groweth to composition with the defendant: which he cannot do without peril of the statute, except he have licence from the court, which licence he ought to return by order and course of the court, together with a declaration upon his oath of the true sum that he takes for the composition. Upon which licence so returned, the court is to tax a fine for the king.

This ought to be, but as it is now used, the licence is seldom returned. And although it contain a clause that the licence shall be void, if it be not duly returned; yet the manner is to suggest that they are still in terms of composition, and so to obtain new days, and to linger it on till a parliament and a pardon come.

Also, when the licence is returned, and thereupon the judge or baron to settle a fine; there is none for the king to inform them of the nature of the offence; of the value to grow to the king if the suit prevail; of the ability of the person, and the like. By reason whereof, the fine that is set is but a trifle, as 20, 30, or 40 s. and it runs in a form likewise which I do not well like: for it is *ut partur misis*, which purporteth, as if the party did not any way submit himself, and take the composition as of grace of the court, but as if he did justify himself,

#### *The remedies.*

1. The officer in this point is to perform his greatest service to the king, in soliciting for the king in such sort as licences be duly returned, the deceits of these fraudulent compositions discovered, and fines may be set for the king in some good proportion, having respect to the values both of the matter and the person: for the king's fines are not to be delivered, as moneys given by the party *ad redimendam vexationem*, but as moneys given *ad redimendam culpam et poenam legis*; and ought to be in such quantity, as may not make the laws altogether trampled down and contemned. Therefore the officer ought first to be made acquainted with every licence, that he may have an eye to the sequel of it: then ought he to be the person that ought to prefer unto the judges or barons, as well the bills for the taxations of the fines, as the orders for giving further days, to the end that the court may be duly informed both of the weight of causes, and the delays therein used: and lastly, he is to see that the fines settled be duly put in process, and answered.



and were content to give a trifle to avoid charge.

Which point of form hath a shrewd consequence : for it is some ground that the fine is set too weak.

And as for the informer's oath touching his composition, which is commonly a trifle, and is the other ground of the smallness of the fine, it is no doubt taken with an equivocation : as taking such a sum in name of a composition, and some greater matter by some indirect or collateral mean.

Also, these fines (light as they be) are seldom answered and put in proceſs.

2. An information goeth on to trial, and passeth for the king. In this case of recovery, the informer will be satisfied, and will take his whole moiety (for that he accounts to be no composition :) that done, none will be at charge to return the *posſea*, and to procure judgment and execution for the king. For the informer hath that he sought for, the clerks will do nothing without fees paid, which there being no man to prosecute, there can be no man likewise to pay ; and so the king loseth his moiety, when his title appears by verdict.

3. It falleth out sometimes in informations of weight, and worthy to be prosecuted, the informer dieth, or falls to poverty, or his mouth is stopped, and yet so as no man can charge him with composition, and so the matter dieth.

4. There be sundry seizures made, in case where the laws give seizures, which are released by agreements underhand, and so money wrested from the subject, and no benefit to the king.

All seizures once made ought not to be discharged, but by order of the court, and therefore some entry ought to be made of them.

2. The officer is to follow for the king, that the *posſea* be returned.

3. The officer in such case is to inform the king's learned counsel, that they may prosecute if they think fit.

4. The officer is to take knowledge of such seizures, and to give information to the court concerning them.

This is of more difficulty, because seizures are matter in fact, whereas suits are matter of record : and it may require more persons to be employed, as at the ports, where is much abuse.

THERE be other points wherein the officer may be of good use, which may be comprehended in his grant or instructions, wherewith I will not now trouble your majesty, for I hold these to be the principal.

Thus have I, according to your majesty's reference certified my opinion of that part of Sir Stephen Proctor's projects, which concerneth penal laws : which I do wholly and most humbly submit to your majesty's high wisdom and judgment, wishing withal that some conference may be had by Mr. Chancellor and the barons, and the rest of the learned counsel, to draw the service to a better perfection. And most specially, that the travels therein taken may be considered and discerned of by the lord Treasurer, whose care and capacity is such, as he doth always either find or chuse that which is best for your majesty's service.

The recompence unto the gentleman, it is not my part to presume to touch otherwise, than to put your majesty in remembrance of that proportion, which your majesty is pleased to give to others out of the profits they bring in, and perhaps with a great deal less labour and charge.

A SPEECH



## S P E E C H used to the K I N G,

B Y

## HIS MAJESTY'S SOLICITOR,

Being chosen by the COMMONS as their Mouth and Messenger, for the presenting to his Majesty the Instrument or Writing of their

## G R I E V A N C E S.

In the Parliament 7 JACOBI.

*Most gracious Sovereign,*

**T**HE knights, citizens, and burgeses assembled in parliament, in the house of your commons, in all humbleness do exhibit and present unto your most sacred majesty, in their own words, though by my hand, their petitions and grievances. They are here conceived and set down in writing, according to ancient custom of parliament: they are also prefaced according to the manner and taste of these later times. Therefore for me to make any additional preface, were neither warranted nor convenient; especially speaking before a king, the exactness of whose judgment ought to scatter and chase away all unnecessary speech as the sun doth a vapour. This only I must say; since this session of parliament we have seen your glory in the solemnity of the creation of this most noble prince; we have heard your wisdom in sundry excellent speeches which you have delivered amongst us: now we hope to find and feel the effects of your goodness, in your gracious answer to these our petitions. For this we are persuaded, that the tribute which was given by one of the wisest writers to two of the best emperors, *Divus Nerva et divus Trajanus* (so saith Tacitus) *res olim insociabiles miscuerunt, imperium et libertatem*; may be truly applied to your majesty. For never was there such a conservator of regality in a crown, nor ever such a protector of lawful freedom in a subject.

Only this, excellent sovereign, let not the sound of grievances (though it be sad) seem harsh to your princely ears: it is but *gemitus columbae*, the mourning of a dove; with that patience and humility of heart which appertaineth to loving and loyal subjects. And far be it from us, but that in the midst of the sense of our grievances we should remember and acknowledge the infinite benefits, which by your majesty, next under God, we do enjoy; which bind us to wish unto your lifefulness of days; and unto your line royal a succession and continuance even unto the world's end.

It resteth, that unto these petitions here included I do add one more that goeth to them all: which is, that if in the words and frame of them there be any thing offensive; or that we have expressed ourselves otherwise than we should or would; that your majesty would cover it and cast the veil of your grace upon it; and accept of our good intentions, and help them by your benign interpretation.

Lastly, I am most humbly to crave a particular pardon for myself that have used these few words; and scarcely should have been able to have used any at all, in respect of the reverence which I bear to your person and judgment, had I not been somewhat relieved and comforted by the experience, which in my service and access I have had of your continual grace and favour.

A S P E E C H



## SPEECH of the King's SOLICITOR,

Used unto the Lords at a conference by commission from the Commons, moving and persuading the Lords to join with the Commons in petition to the king, to obtain liberty to treat of a composition with his majesty for

## WARDS and TENURES.

In the Parliament 7 JACOB I.

**T**HE knights, citizens, and burgesſes of the houſe of commons have commanded me to deliver to your lordſhips the cauſes of the conference by them prayed, and by your lordſhips aſſented, for the ſecond buſineſs of this day. They have had report made unto them faithfully of his majesty's answer declared by my lord Treafurer, touching their humble deſire to obtain liberty from his majesty to treat of compounding for tenures. And firſt, they think themſelves much bound unto his majesty, that in *re nova*, in which caſe princes uſe to be apprehenſive, he hath made a gracious conſtruction of their propoſition. And ſo much they know of that, that belongs to the greatneſs of his majesty and the greatneſs of the cauſe, as themſelves acknowledge they ought not to have expected a preſent reſolution, though the wiſe man ſaith, *Hope deferred is the ſainting of the ſoul*. But they know their duty to be to attend his majesty's times at his good pleaſure. And this they do with the more comfort, becauſe that in his majesty's answer (matching the times, and weighing the paſſages thereof) they conceive, in their opinion, rather hope, than diſcouragement.

But the principal cauſes of the conference now prayed (beſides theſe ſignifications of duty not to be omitted) are two propoſitions. The one, matter of excuſe of themſelves; the other, matter of petition. The former of which grows thus. Your lordſhip, my lord Treafurer, in your laſt declaration of his majesty's answer (which, according to the attribute then given unto it, had *imaginem Caſaris* fair and lively graven) made this true and effectual diſtribution, that there depended upon tenures, conſiderations of honour, of conſcience, and of utility. Of theſe three, utility, as his majesty ſet it by for the preſent, out of the greatneſs of his mind, ſo we ſet it by, out of the juſtneſs of our deſires: for we never meant but a goodly and worthy augmentation of the profit now received, and not a diminution. But, to ſpeak truly, that conſideration falleth naturally to be examined when liberty of treaty is granted: but the former two indeed may exclude treaty, and cut it off before it be admitted.

Nevertheless, in this, that we ſhall ſay concerning thoſe two, we deſire to be conceived rightly: we mean not to diſpute with his majesty what belongeth to ſovereign honour, or his princely conſcience; becauſe we know, we are not capable to diſcern them otherwiſe, than as men uſe ſometimes to ſee the image of the ſun in a pail of water. But this we ſay for ourſelves, God forbid that we, knowingly, ſhould have propounded any thing, that might in our ſenſe and perſuaſion touch either or both; and therefore herein we deſire to be heard, not to inform or perſuade his majesty, but to free and excuſe ourſelves.

And firſt, in general, we acknowledge, that this tree of tenures was planted into the prerogative by the ancient common law of this land: that it hath been fenced in and preſerved by many ſtatutes; and that it yieldeth at this day to the king the fruit of a great revenue. But yet, notwithſtanding, if upon the ſtem of this

tree



tree may be raised a pillar of support to the crown permanent and durable as the marble, by investing the crown with a more ample, more certain, and more loving dowry, than this of tenures; we hope we propound no matter of disservice.

But to speak distinctly of both, and first of honour: wherein I pray your lordships, give me leave, in a subject that may seem *supra nos*, to handle it rather as we are capable, than as the matter perhaps may require. Your lordships well know the various mixture and composition of our house. We have in our house learned civilians that profess a law, that we reverence and sometimes consult with: they can tell us, that all the laws *de feodis* are but additions to the ancient civil law; and that the Roman emperors, in the full height of their monarchy, never knew them; so that they are not imperial. We have grave professors of the common law, who will define unto us that those are parts of sovereignty, and of the royal prerogative, which cannot be communicated with subjects: but for tenures in substance, there is none of your lordships but have them, and few of us but have them. The king indeed hath a priority or first service of his tenures; which shews that they are not regal, nor any point of sovereignty. We have gentlemen of honourable service in the wars both by sea and land, who can inform us, that when it is in question, who shall set his foot foremost towards the enemy; it is never asked, Whether he holds in knight's service or in socage. So have we many deputy lieutenants to your lordships, and many commissioners that have been for musters and levies, that can tell us, that the service and defence of the realm hath in these days little dependance upon tenures. So then we perceive that it is no bond or ligament of government; no spur of honour, no bridle of obedience. Time was, when it had other uses, and the name of knight's service imports it: but *vocabula manent, res fugiunt*. But all this, which we have spoken, we confess to be but in a vulgar capacity; which nevertheless may serve for our excuse, though we submit the thing itself wholly to his majesty's judgment.

For matter of conscience, far be it from us to cast in any thing willingly, that may trouble that clear fountain of his majesty's conscience. We do confess it is a noble protection, that these young birds of the nobility and good families should be gathered and clogged under the wings of the crown. But yet *Naturae vis maxima*: and *Suus cuique discretus sanguis*. Your lordships will favour me, to observe my former method. The common law itself, which is the best bounds of our wisdom, doth, even in *hoc individuo*, prefer the prerogative of the father before the prerogative of the king: for if lands descend, held in chief from an ancestor on the part of a mother, to a man's eldest son, the father being alive, the father shall have the custody of the body, and not the king. It is true, that this is only for the father, and not any other parent or ancestor: but then if you look to the high law of tutelage and protection, and of obedience and duty, which is the relative thereunto; it is not said, "Honour thy father alone," but *Honour thy father and thy mother*, etc. Again, the civilians can tell us, that there was a special use of the pretorian power for pupils, and yet no tenures. The citizens of London can tell us, there be courts of orphans, and yet no tenures. But all this while we pray your lordships to conceive, that we think ourselves not competent to discern of the honour of his majesty's crown, or the shrine of his conscience; but leave it wholly unto him, and alledge these things but in our own excuse.

For matter of petition, we do continue our most humble suit, by your lordship's loving conjunction, that his majesty will be pleased to open unto us this entrance of his bounty and grace, as to give us liberty to treat. And lastly, we know his majesty's times are not subordinate at all but to the globe above. About this time the sun hath got even with the night, and will rise apace; and we know Solomon's temple (whereof your lordship, my lord Treasurer, spake) was not built in a day; and if we shall be so happy as to take the axe to hew, and the hammer to frame, in this case, we know it cannot be without time; and therefore, as far as we may with duty, and without importunity, we most humbly desire an acceleration of his majesty's answer, according to his good time and royal pleasure.



**A F R A M E** of

# DECLARATION

MASTER of the WARDS,

AT HIS

FIRST SITTING.

**T**HE king (whose virtues are such, as if we, that are his ministers, were able duly to correspond unto them, it were enough to make a golden time) hath commanded certain of his intentions to be published, touching the administration of this place, because they are somewhat differing from the usage of former times, and yet not by way of novelty, but by way of reformation, and reduction of things to their ancient and true institution.

Wherein nevertheless it is his majesty's express pleasure it be signified, that he understand this to be done, without any derogation from the memory or service of those great persons, which have formerly held this place, of whose doings his majesty retaineth a good and gracious remembrance, especially touching the finicity of their own minds.

But now that his majesty meaneth to be as it were master of the wards himself, and that those that he useth, be as his substitutes, and move wholly in his motion; he doth expect things be carried in a sort worthy of his own care.

First therefore his majesty hath had this princely consideration with himself, that as he is *pater patriæ*, so he is by the ancient law of this kingdom *pater pædagogus*, where there is any tenure by knight's service of himself; which extendeth almost to all the great families noble and generous of this kingdom: and therefore being a representative [father, his purpose is to imitate, and approach as near as may be to the duties and offices of a natural father, in the good education, well bellowing in marriage, and preservation of the houses, woods, lands, and estates of his wards.

For as it is his majesty's direction, that that part which concerns his own profit and right, be executed with moderation; so on the other side, it is his princely will that that other part, which concerneth protection, be overspread and extended to the utmost.

Wherein his majesty hath three persons in his eye, the wards themselves, idiots, and the rest of like nature; the suitors in this court; and the subjects at large.

For the first, his majesty hath commanded special care be taken in the choice of the persons, to whom they be committed, that the same be found in religion, such whole houses and families are not noted for dissolute, no greedy persons, no step-mothers, nor the like; and with these qualifications, of the nearest friends: may further, his majesty is minded not so to delegate this trust to the committees, but that he will have once in the year at the least, by persons of credit in every county, a view and inspection taken of the persons, houses, woods, and lands of the wards, and other persons under the protection of this court, and certificate to be made thereof accordingly.

For the tutors, which is the second; his majesty's princely care falls upon two points of reformation; the first, that there be an examination of fees, what are due and ancient, and what are new and exacted; and those of the latter kind put



put down : the other, that the court do not entertain causes too long upon continuances of liveries after the parties are come of full age, which serveth but to waste the parties in suit, considering the decrees cannot be perpetual, but temporary; and therefore controversies here handled, are seldom put in peace, till they have past a trial and decision in other courts.

For the third, which is the subject at large; his majesty hath taken into his princely care the unnecessary vexations of his people by feodaries, and other inferior ministers of like nature, by colour of his tenures; of which part I say nothing for the present, because the parties whom it concerns, are for the most part absent: but order shall be given, that they shall give their attendance the last day of the term, then to understand further his majesty's gracious pleasure.

Thus much by his majesty's commandment; now we may proceed to the business of the court.

## DIRECT IONS

For the MASTER of the WARDS to observe,

**F**IRST, that he take an account how his majesty's last instructions have been pursued; and of the increase of benefit accrued to his majesty thereby, and the proportion thereof.

Wherein first in general it will be good to cast up a year's benefit, viz. from February 1610, which is the date of the instructions under the great seal, to February 1611; and to compare the total with former years before the instructions, that the tree may appear by the fruit, and it may be seen how much his majesty's profit is redoubled or increased by that course.

Secondly, It will not be amiss to compute not only the yearly benefit, but the number of wardships granted that year, and to compare that with the number of former years; for though the number be a thing casual, yet if it be apparently less than in former years, then it may be justly doubted, that men take advantage upon the last clause in the instructions (of exceptions of wards concealed) to practice delays and misfunding of offices, which is a thing most dangerous.

Thirdly, in particular it behoveth to peruse and review the bargains made, and to consider the rates (mens estates being things, which for the most part cannot be hid) and thereby to discern what improvements and good husbandry hath been used, and how much the king hath more now when the whole benefit is supposed to go to him, than he had when three parts of the benefit went to the committee.

Fourthly, It is requisite to take consideration what commissions have been granted for copyholds for lives, which are excepted by the instructions from being leased, and what profit hath been raised thereby.

Thus much for the time past, and upon view of these accounts, *res dabit consilium* for further order to be taken.

For the time to come, first it is fit that the master of the wards, being a meaner person, be usually present as well at the treaty and beating of the bargain, as at the concluding, and that he take not the business by report.

Secondly, When suit is made, the information by survey and commission is but one image, but the way were by private diligence to be really informed: neither is it hard for a person that liveth in an inn of court, where there be understanding men of every county of England, to obtain by ease certain information.

Thirdly, This kind of promise of preferring the next a-kin, doth much obscure the information, which before by competition of divers did better appear; and therefore it may be necessary for the master of the wards sometimes to direct letters to some persons near the ward living, and to take certificate from them; it



## DIRECTIONS FOR THE MASTER OF THE WARDS.

it being always intended the subject be not racked too high, and that the nearest friends that be found in religion, and like to give the ward good education, be preferred.

Fourthly, That it be examined carefully whether the ward's revenues consist of copyholds for lives, which are not to be comprized in the lease, and that there be no neglect to grant commissions for the same, and that the master take order to be certified of the profits of former courts held by the ward's ancestor, that it may be a precedent and direction for the commissioners.

Fifthly, That the master make account every fix months (the state appoints one in the year) to his majesty; and that when he bringeth the bill of grants of the body for his majesty's signature, he bring a schedule of the truth of the state of every one of them (as it hath appeared to him by information) and acquaint his majesty both with the rates and states.

Thus much concerning the improvement of the king's profit, which concerneth the king as *pater familias*; now as *pater patriae*.

First, for the wards themselves, that there be special care taken in the choice of the committee, that he be found in religion, his house and family not dissolute, no greedy person, no step-mother, nor the like.

Further, that there be letters written once every year to certain principal gentlemen of credit in every county, to take view not only of the person of the wards in every county, and their education; but of their houses, woods, grounds, and estate, and the same to certify; that the committees may be held in some awe, and that the blessing of the poor orphans and the pupils may come upon his majesty and his children.

Secondly, for the suitors; that there be a strict examination concerning the raising and multiplication of fees in that court, which is much scandalized with opinion thereof, and all exalted fees put down.

Thirdly, for the subjects at large; that the vexation of escheators and feodaries be repressed, which (upon no substantial ground of record) vex the country with inquisitions and other extortions: and for that purpose that there be one set day at the end of every term appointed for examining the abuses of such inferior officers, and that the master of wards take special care to receive private information from gentlemen of quality and confidence in every shire touching the same.

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# SPEECH of the King's SOLICITOR,

P E R S U A D I N G

## The HOUSE of COMMONS

To desist from farther question of receiving the

## K I N G ' s M E S S A G E S,

By their Speaker, and from the body of the Council,  
as well as from the King's person.

In the Parliament 7 JACOBI.

**I**T is my desire, that if any the king's business, either of honour or profit, shall pass the house, it may be not only with external prevailing, but with satisfaction of the inward man. For in consent, where tongue-strings, not heart-strings, make the musick, that harmony may end in discord. To this I shall always bend my endeavours.

The king's sovereignty, and the liberty of parliament, are as the two elements and principles of this estate; which, though the one be more active, the other more passive, yet they do not cross or destroy the one the other; but they strengthen and maintain the one the other. Take away liberty of parliament, the griefs of the subject will bleed inwards: sharp and eager humours will not evaporate; and then they must exulcerate; and so may endanger the sovereignty itself. On the other side, if the king's sovereignty receive diminution, or any degree of contempt with us that are born under an hereditary monarchy (so as the motions of our estate cannot work in any other frame or engine) it must follow, that we shall be a meteor, or *corpus imperfecte mixtum*; which kind of bodies come speedily to confusion and dissolution. And herein it is our happiness, that we may make the same judgment of the king, which Tacitus made of Nerva: *Divus Nerva res olim dissociabiles miscuit, imperium et libertatem*. Nerva did temper things, that before were thought incompatible, sovereignty and liberty. And it is not amiss in a great council and a great cause to put the other part of the difference, which was significantly expressed by the judgment which Apollonius made of Nero; which was thus: when Vespasian came out of Judaea towards Italy to receive the empire, as he passed by Alexandria he spake with Apollonius, a man much admired, and asked him a question of state: "What was the cause of Nero's fall or overthrow?" Apollonius said, "Nero could tune the harp well: but in government he always either wound up the pins too high, and strained the strings too far; or let them down too low, and slackened the strings too much." Here we see the difference between regular and able princes, and irregular and incapable, Nerva, and Nero. The one tempers and mingles the sovereignty with the liberty of the subject wisely; and the other doth interchange it, and vary it unequally and absurdly. Since therefore we have a prince of so excellent wisdom and moderation, of whose authority we ought to be tender, as he is likewise of our liberty, let us enter into a true and indifferent consideration, how far forth the case in question may touch his authority, and how far forth our liberty: and, to speak clearly, in my opinion it concerns his authority much, and our liberty nothing at all.

The questions are two: the one, whether our speaker be exempted from delivery of a message from the king without our licence? The other, whether  
Vol. I. 8 L it



OF RECEIVING THE KING'S MESSAGES.

it is not all one whether he received it from the body of the council, as if he received it immediately from the king? And I will speak of the last first, because it is the circumstance of the present case.

First, I say, let us see how it concerns the king, and then how it concerns us. For the king, certainly, if it be observed, it cannot be denied, but if you may not receive his pleasure by his representative body, which is his council of his estate, you both straiten his majesty in point of convenience, and weaken the reputation of his council. All kings, though they be Gods on earth, yet (as he said) they are Gods of earth, frail as other men; they may be of extreme age; they may be indisposed in health; they may be absent. In these cases, if their councils may not supply their persons, to what infinite accidents do you expose them? Nay more, sometimes in policy kings will not be seen, but cover themselves with their council; and if this be taken from them, a great part of their safety is taken away. For the other point, of weakening the council; you know they are nothing without the king: they are no body-politic; they have no commission under seal. So as, if you begin to distinguish and disjoin them from the king, they are *corpus opacum*; for they have *lumen de lumine*: and so by distinguishing you extinguish the principal engine of the estate. For it is truly affirmed, that *Concilium non habet potestatem delegatam, sed incarcerationem*: and it is but *Rex in cathedra*, the king in his chair or confistory, where his will and decrees, which are in privacy more changeable, are settled and fixed.

Now for that which concerns ourselves. First, for dignity; no man must think this a disparagement for us: for the greatest kings in Europe, by their ambassadors, receive answers and directions from the council in the king's absence; and if that negotiation be fit for the fraternity and party of kings, it may much less be excepted to by subjects.

For life or benefit, no man can be so raw and unacquainted in the affairs of the world, as to conceive there should be any diadvantage in it, as if such answers were less firm and certain. For it cannot be supposed, that men of so great caution, as counsellors of estate commonly are (whether you take caution for wisdom or providence, or for pledges of estate or fortune) will ever err, or adventure so far as to exceed their warrant. And therefore I conclude, that in this point there can be unto us neither disgrace nor diadvantage.

For the point of the speaker. First, on the king's part, it may have a shrewd allusion; for it hath a shew, as if there could be a stronger duty, than the duty of a subject to a king. We see the degrees and differences of duties in families, between father and son, master and servant; in corporate bodies, between communalities and their officers, recorders, stewards, and the like; yet all these give place to the king's commandments. The bonds are more special, but not so forcible. On our part, it concerns us nothing. For first it is but *de canali*, of the pipe; how the king's message shall be conveyed to us, and not of the matter. Neither hath the speaker any such dominion, as that coming out of his mouth it presseth us more than out of a privy counsellor's. Nay, it seems to be a great trust of the king's towards the house, when the king doubteth not to put his message into their mouth, as if he should speak to the city by their recorder: therefore, methinks, we should not entertain this unnecessary doubt. It is one use of wit to make clear things doubtful; but it is a much better use of wit to make doubtful things clear; and to that I would men would bend themselves.



AND

# ARCGUMENT

OF

Sir FRANCIS BACON, the King's Solicitor,

In the lower house of PARLIAMENT,

PROVING

The King's right of impositions on merchandises imported and exported.

AND it please you, Mr. Speaker, this question touching the right of impositions is very great; extending to the prerogative of the king on the one part, and the liberty of the subject on the other; and that in a point of profit and value, and not of conceit or fancy. And therefore, as weight in all motions increaseth force, so I do not marvel to see men gather the greatest strength of argument they can to make good their opinions. And so you will give me leave likewise, being strong in mine own persuasion that it is the king's right, to shew my voice as free as my thought. And for my part I mean to observe the true course to give strength to this cause, which is, by yielding those things which are not tenable, and keeping the question within the true state and compass; which will discharge many popular arguments, and contract the debate into a less room.

Wherefore I do deliver the question, and exclude or set by, as not in question, five things. First, the question is *de portorio*, and not *de tribute*, to use the Roman words for explanation sake; it is not, I say, touching any taxes within the land, but of payments at the ports. Secondly, it is not touching any impost from port to port, but where *claves regni*, the keys of the kingdom, are turned to let in from foreign parts, or to send forth to foreign parts; in a word, matter of commerce and intercourse, not simply of carriage or vesture. Thirdly, the question is (as the distinction was used above in another case) *de vero et falso*, and not *de bono et malo*, of the legal point, and not of the inconvenience, otherwise than as it serves to decide the law. Fourthly, I do set apart three commodities, wools, wool-fells, and leather, as being in different case from the rest; because the custom upon them is *antiqua customa*. Lastly, the question is not, whether in matter of imposing the king may alter the law by his prerogative, but whether the king have not such a prerogative by law.

The state of the question being thus cleared and freed, my proposition is, that the king by the fundamental laws of this kingdom hath a power to impose upon merchandise and commodities both native and foreign. In my proof of this proposition all that I shall say, be it to confirm or confute, I will draw into certain distinct heads or considerations which move me, and may move you.

The first is an universal negative: there appeareth not in any of the king's courts any one record, wherein an imposition laid at the ports hath been overthrown by judgment; nay more, where it had been questioned by pleading. This plea, *quod summa prædicta minus jussu imposita sunt, et contra leges et consuetudines regni hujus Angliæ, unde idem Bates illam solvere recusavit prout ei bene licuit; is primæ impressionis*. Bates was the first man *ab origine mundi* (for any thing that appeareth) that ministered that plea; whereupon I offer this to consideration: the king's acts that grieve the subject are either against law, and so void, or according to strictness of law, and yet grievous. And according to these several natures of grievance, there be several remedies: Be they against law? Overthrow them by judgment: Be they too strait and extreme, though legal? Propound them in parliament. For as much then as impositions at the ports,

\* This matter was much debated by the lawyers and gentlemen in the parliament, 1610, and 1614, etc. and afterwards given up by the crown in 1641.

having



having been so often laid, were never brought into the king's courts of justice, but still brought to parliament, I may most certainly conclude, that they were conceived not to be against law. And if any man shall think that it was too high a point to question by law before the judges, or that there should want fortitude in them to aid the subject; no, it shall appear from time to time in cases of equal reach, where the king's acts have been indeed against law, the course of law hath run, and the judges have worthily done their duty.

As in the case of an imposition upon linnen cloth for the alnage; overthrown by judgment.

<sup>12 H. 4.</sup>  
<sup>13 H. 4.</sup>  
<sup>40 Aff.</sup>

The case of a commission of arrest and committing of subjects upon examination without conviction by jury, disallowed by the judges.

<sup>2 Eliz.</sup>  
<sup>Scrogg's</sup>  
<sup>case.</sup>

A commission to determine the right of the exigenter's place, *secundum sanam discretionem*, disallowed by the judges.

<sup>43 Eliz.</sup>

The case of the monopoly of cards overthrown and condemned by judgment. I might make mention of the jurisdiction of some courts of discretion, wherein the judges did not decline to give opinion. Therefore, had this been against law, there would not have been *altum silentium* in the king's courts. Of the contrary judgments I will not yet speak; thus much now, that there is no judgment, no nor plea against it. Though I said no more, it were enough, in my opinion, to induce you to a *non liquet*, to leave it a doubt.

The second consideration is, the force and continuance of payments made by grants of merchants, both strangers and English, without consent of parliament. Herein I lay this ground, that such grants considered in themselves are void in law: for merchants, either strangers or subjects, they are no body corporate, but singular and dispersed persons; they cannot bind succession, neither can the major part bind the residue: how then should their grants have force? No otherwise but thus; that the king's power of imposing was only the legal virtue and strength of those grants; and that the consent of a merchant is but a concurrence, the king is *principale agens*, and they are but as the patient, and so it becomes a binding act out of the king's power.

<sup>31 Ed. 1.</sup>  
<sup>Chart.</sup>  
<sup>mercator.</sup>

Now if any man doubt that such grants of merchants should not be of force, I will alledge but two memorable records, the one for the merchants strangers, the other for the merchants English. That for the strangers is upon the grant *of chart. mercator.* of three pence in value *ultra antiquas customas*; which grant is in use and practice at this day. For it is well known to the merchants, that that which they call stranger's custom, and erroneously double custom, is but three pence in the pound more than English. Now look into the statutes of subsidy of tonnage and poundage, and you shall find (a few merchandise only excepted) the poundage equal upon alien and subject; so that this difference or excels of three pence hath no other ground than that grant. It falleth to be the same in quantity; there is no statute for it, and therefore it can have no strength but from the merchants grants; and the merchants grants can have no strength but from the king's power to impose.

<sup>17 Ed. 3.</sup>

For the merchants English, take the notable record in 17 E. 3. where the commons complained of the forty shillings upon the sack of wool as a mal-toll set by the assent of the merchants without consent of parliament; nay, they dispute and say it were hard that the merchants consent should be in damage of the commons. What sayeth the king to them? doth he grant it or give way to it? No; but replies upon them, and saith, It cannot be rightly construed to be in prejudice of the commons, the rather because provision was made, that the merchants should not work upon them, by colour of that payment to increase their price; in that there was a price certain set upon the wools. And there was an end of that matter: which plainly affirmeth the force of the merchants grants. So then the force of the grants of merchants both English and strangers appeareth, and their grants being not corporate, are but noun adjectives without the king's power to impose.

The third consideration is, of the first and most ancient commencement of customs; wherein I am somewhat to seek; for, as the poet saith, *Ingrédiantur solo, et caput inter nubila condit*, the beginning of it is obscure; but I rather conceive



conceive that it is by common-law, than by grant in parliament. For, first, Mr. Dyer's opinion was, that the ancient custom for exportation was by the common laws, and goeth further, that that ancient custom was the custom upon wools, woolfells, and leather: he was deceived in the particular, and the diligence of your search hath revealed it; for that custom upon these three merchandises grew by grant of parliament 3 E. I. but the opinion in general was found; for there was a custom before that: for the records themselves which speak of that custom do term it a new custom, *Alentour del nouvel custome*. As concerning the new custom granted, *etc.* this is pregnant, there was yet a more ancient. So for the strangers, the grant in 31 E. I. *chart. mercator.* is, that the three pence granted by the strangers should be *ultra antiquas custumas*, which hath no affinity with that custom upon the three species, but presupposeth more ancient customs in general. Now if any man think that those more ancient customs were likewise by act of parliament, it is but a conjecture; it is never recited *ultra antiquas custumas prius concessas*, and acts of parliament were not much stirring before the great charter, which was 9 H. III. And therefore I conceive with Mr. Dyer, that whatsoever was the ancient custom, was by the common law. And if by the common law, then what other means can be imagined of the commencement of it but by the king's imposing?

The fourth consideration is, of the manner that was held in parliament in the abolishing of impositions laid: wherein I will consider, first, the manner of the petitions exhibited in parliament; and more specially the nature of the king's answers. For the petitions I note two things; first, that to my remembrance there was never any petition made for the revoking of any imposition upon foreign merchants only. It pleased the Decemviri in 5 E. II. to deface *chart. mercator.* and so the imposition upon strangers, as against law: but the opinion of these reformers, I do not much trust, for they of their gentleness did likewise bring in doubt the deny-mark, which it is manifest was granted by parliament, and pronounced by them the king should have it, *s'il avoit le droit*: but this is declared void by 1 E. III. which reneweth *chart. mercator.* and void must it needs be, because it was an ordinance by commission only, and that in the time of a weak king, and never either warranted or confirmed by parliament. Secondly, I note that petitions were made promiscuously for taking away impositions set by parliament as well as without parliament; nay, that very tax of the *messuagium*, the ninth sheaf or fleece, which is recited to be against the king's oath and in blaspheming of his crown, was an act of parliament, 14 E. III. So then to infer that impositions were against law, because they are taken away by succeeding parliaments, it is no argument at all; because the impositions set by the parliaments themselves, which no man will say were against law, were, nevertheless, afterwards pulled down by parliament. But indeed the argument holdeth rather the other way, that because they took not their remedy in the king's courts of justice, but did fly to the parliament, therefore they were thought to stand with law.

Now for the king's answers: if the impositions complained of had been against law, then the king's answer ought to have been simple, *tantum responsio categorica, non hypothetica*, as, Let them be repealed, or, Let the law run: but contrariwise, they admit all manner of diversities and qualifications: for Sometimes the king disputeth the matter and doth nothing; as 17 E. III. Sometimes the king distinguisheth of reasonable and not reasonable; as 38

## E. III.

Sometimes he abolisheth them in part, and letteth them stand in part, as

11 E. II. the record of the *mutuum*, and 14 E. III. the printed statute,

but whereof I shall speak more anon.

Sometimes that no imposition shall be set during the time that the grants made of subsidies by parliament shall continue, as 47 E. III.

Sometimes that they shall cease *ad voluntatem nostram*.

And sometimes that they shall hold over their term prefixed or assented.

All which sheweth that the king did not disclaim them as unlawful, for *actus legitimus non recipit tempus aut conditionem*. If it had been a disaffirmance by

Vol. I.



law, they must have gone down *in solidò*, but now you see they have been tempered and qualified as the king saw convenient.

The fifth consideration is of that which is offered by way of objection; which is, first, that such grants have been usually made by consent of parliament; and secondly, that the statutes of subsidies of tonnage and poundage have been made as a kind of stint and limitation, that the king should hold himself unto the proportion so granted and not impose further; the rather because it is expressed in some of these statutes of tonnage and poundage, sometimes by way of protestation, and sometimes by way of condition, that they shall not be taken in precedent, or that the king shall not impose any further rates or novelties, as 6 R. II. 9 R. II. 13 H. IV. 1 H. V. which subsidies of tonnage and poundage have such clauses and cautions.

To this objection I give this answer. First, that it is not strange with kings, for their own better strength, and the better contentment of their people, to do those things by parliament, which, nevertheless, have perfection enough without parliament. We see their own rights to the crown which are inherent, yet they take recognition of them by parliament. And there was a special reason why they should do it in this case, for they had found by experience that if they had not consent in parliament to the setting of them up, they could not have avoided suit in parliament for the taking of them down. Besides, there were some things requisite in the manner of the levy for the better strengthening of the same, which percase could not be done without parliament, as the taking the oath of the party touching the value, the inviting of the discovery of concealment of custom by giving the moiety to the informer, and the like.

Now in special for the statutes of subsidies of tonnage and poundage, I note three things. First, that the consideration of the grant is not laid to be for the restraining of impositions, but expressly for the guarding of the sea. Secondly, that it is true that the ancient form is more peremptory, and the modern more *submissis*; for in the ancient form sometimes they insert a flat condition that the king shall not further impose; in the latter they humbly pray that the merchants may be deemed without oppression, paying those rates; but whether it be supplication, or whether it be condition, it rather implyeth the king hath a power; for else both were needless, for *conditio annectitur ubi libertas præsumitur*, and the word oppression seemeth to refer to excessive impositions. And thirdly, that the statutes of tonnage and poundage are but *cumulative* and not *privative* of the king's power precedent, appeareth notably in the three pence overplus, which is paid by the merchants strangers, which should be taken away quite, if those statutes were taken to be limitations; for in that, as was touched before, the rates are equal in the generality between subjects and strangers, and yet that imposition, notwithstanding any supposed restriction of these acts of subsidies of tonnage and poundage, remaineth at this day.

The sixth consideration is likewise of an objection, which is matter of practice, *viz.* that from R. II's. time to Q. Mary, which is almost 200 years, there was an intermission of impositions, as appeareth both by records and the custom-books.

To which I answer; both that we have in effect an equal number of years to countervail them, namely, 100 years in the times of the three kings Edwards added to 60 of our last years; and *extrema obrunt media*; for we have both the reverence of antiquity and the possession of the present times, and they but the middle times; and besides, in all true judgment there is a very great difference between an usage to prove a thing lawful, and a non-usage to prove it unlawful: for the practice plainly implyeth consent; but the discontinuance may be either because it was not needful, though lawful; or because there was found a better means, as I think it was indeed in respect of the double customs by means of the staple at Calais.



## BRIEF SPEECH

In the End of the Session of Parliament 7 JACOBI,

PERSUADING

Some Supply to be given to his MAJESTY ;

Which seemed then to stand upon doubtful terms,  
and passed upon this speech.

THE proportion of the king's supply is not now in question : for when that shall be, it may be I shall be of opinion, that we should give so new, as we may the better give again. But as things stand for the present, I think the point of honour and reputation is that which his majesty standeth most upon, that our gift may at least be like those showers, that may serve to lay the winds, though they do not sufficiently water the earth.

To labour to persuade you, I will not : for I know not into what form to cast my speech. If I should enter into a laudative (though never so due and just) of the king's great merits, it may be taken for flattery : if I should speak of the strait obligations which intercede between the king and the subject, in case of the king's want, it were a kind of concluding the house : if I should speak of the dangerous consequence, which want may reverberate upon subjects, it might have a shew of a secret menace.

These arguments are, I hope, needless, and do better in your minds than in my mouth. But this give me leave to say, that whereas the example of Cyrus was used, who sought his supply from those upon whom he had bestowed his benefits ; we must always remember, that there are as well benefits of the scepter as benefits of the hand, as well of government as of liberality. These, I am sure, we will acknowledge to have come *plena manu* amongst us all, and all those whom we represent ; and therefore it is every man's head in this case that must be his counsellor, and every man's heart his orator ; and those inward powers are more forcible than any man's speech. I leave it, and wish it may go to the question.



A  
CERTIFICATE  
TO THE  
LORDS of the COUNCIL,

Upon information given touching the

Scarcity of SILVER at the MINT,

AND

Reference to the two Chancellors, and the King's Solicitor.

*It may please your Lordships,*

**A**CCORDING unto your lordships letters unto us directed, grounded upon the information, which his majesty hath received concerning the scarcity of silver at the Mint, we have called before us as well the officers of the Mint, as some principal merchants, and spent two whole afternoons in the examination of the business; wherein we kept this order, first to examine the fact, then the causes, with the remedies.

And for the fact, we directed the officers of the Mint to give unto us a distinguished account how much gold and silver hath yearly been brought into the Mint, by the space of six whole years last past, more specially for the last three months succeeding the last proclamation touching the price of gold; to the end we might by the suddenness of the fall discern, whether that proclamation might be thought the efficient cause of the present scarcity. Upon which account it appears to us, that during the space of six years aforesaid, there hath been still degrees of decay in quantity of the silver brought to the Mint, but yet so, as within these last three months it hath grown far beyond the proportion of the former time, in so much as there comes in now little or none at all. And yet, notwithstanding, it is some opinion, as well amongst the officers of the Mint as the merchants, that the state need be the less apprehensive of this effect, because it is like to be but temporary, and neither the great flush of gold that is come into the Mint since the proclamation, nor on the other side the great scarcity of silver, can continue in proportion as it now doth.

Another point of the fact, which we thought fit to examine, was, whether the scarcity of silver appeared generally in the realm, or only at the Mint; wherein it was confessed by the merchants, that silver is continually imported into the realm, and is found stirring amongst the goldsmiths, and otherwise, much like as in former times, although, in respect of the greater price which it hath with the goldsmith, it cannot find the way to the Mint. And thus much for the fact.

For the causes with the remedies, we have heard many propositions made, as well by the lord Knevet, who assisted us in this conference, as by the merchants; of which propositions few were new unto us, and much less can be new to your lordships; but yet although upon former consultations, we are not unacquainted what is more or less likely to stand with your lordships grounds and opinions, we thought it nevertheless the best fruit of our diligence to set them down in articles, that your lordships with more ease may discard or entertain the particulars, beginning with those which your lordships do point at in your letters, and so descending to the rest.

The first proposition is, touching the disproportion of the price between gold and silver, which is now brought to bed, upon the point of fourteen to one, being before but twelve to one. This we take to be an evident cause of scarcity of



of silver at the Mint, but such a cause as will hardly receive a remedy; for either your lordships must draw down again the price of gold, or advance the price of silver; whereof the one is going back from that which is so lately done, and whereof you have found good effect, and the other is a thing of dangerous consequence in respect of the loss to all moneyed men in their debts, gentlemen in their rents, the king in his customs, and the common subject in raising the price of things vendible. And upon this point it is fit we give your lordships understanding what the merchants intimated unto us, that the very voicing or suspect of the raising of the price of silver, if it be not cleared, would make such a deadness and retention of money this vacation, as (to use their own words) will be a misery to the merchants: so that we were forced to use protestation, that there was no such intent.

The second proposition is, touching the charge of coinage; wherein it was confidently avouched by the merchants, that if the coinage were brought from two shillings unto eighteen pence, as it was in queen Elizabeth's time, the king would gain more in the quantity than he should lose in the price: and they aided themselves with that argument, that the king had been pleased to abate his coinage in the other metal, and found good of it: which argument, though it doth admit a difference, because that abatement was coupled with the raising of the price, whereas this is to go alone; yet nevertheless it seemed the officers of the Mint were not unwilling to give way to some abatement, although they presumed it would be of small effect, because that abatement would not be equivalent to that price which Spanish silver bears with the goldsmith; but yet it may be used as an experiment of state, being recoverable at his majesty's pleasure.

The third proposition is, concerning the exportation of silver more than in former times, wherein we fell first upon the trade into the East Indies; concerning which it was materially in our opinions answered by the merchants of that company, that the silver which supplies that trade, being generally Spanish moneys, would not be brought in but for that trade, so that it sucks in as well as it draws forth. And it was added likewise, that as long as the Low Countries maintained that trade in the Indies, it would help little though our trade were dissolved, because that silver which is exported immediately by us to the Indies would be drawn out of this kingdom for the Indies immediately by the Dutch: and for the silver exported to the Levant, it was thought to be no great matter. As for other exportation, we saw no remedy but the execution of the laws, specially those of employment being by some mitigation made agreeable to the times. And these three remedies are of that nature, as they serve to remove the causes of this scarcity. There were other propositions of policies and means, directly to draw silver to the Mint.

The fourth point thereof was this: It is agreed that the silver which hath heretofore fed the Mint, principally hath been Spanish money. This now comes into the realm plentifully, but not into the Mint. It was propounded in imitation of some precedent in France, that his majesty would by proclamation restrain the coming in of this money *sub modo*, that is, that either it be brought to the Mint, or otherwise to be cut and defaced, because that now it passeth in payments in a kind of currency. To which it was colourably objected, that this would be the way to have none brought in at all, because the gain ceasing, the importation would cease; but this objection was well answered, that it is not gain altogether, but a necessity of speedy payment, that causeth the merchant to bring in silver to keep his credit, and to drive his trade: so that if the king keep his fourteen days payment at the Mint, as he always hath done, and have likewise his exchangers for those moneys in some principal parts, it is supposed that all Spanish moneys, which is the bulk of silver brought into this realm, would by means of such a proclamation come into the Mint; which may be a thing considerable.

The fifth proposition was this: It was warranted by the laws of Spain to bring in silver for corn or victuals; it was propounded that his majesty would restrain exportation of corn *sub modo*, except they bring the silver which resulted thereof unto his Mint, that trade being commonly so beneficial, as the merchant may well endure the bringing of the silver to the Mint, although it were at the charge of coinage, which it now beareth further, as incident to this matter. There



was revived by the merchants, with some instance, the ancient proposition concerning the erection of granaries for foreign corn, forasmuch as by that increase of trade in corn, the importation of silver would likewise be multiplied.

The sixth proposition was, That upon all licence of forbidden commodities, there shall be a rate set of silver to be brought into the Mint: which nevertheless may seem somewhat hard, because it imposeth upon the subject that which causeth him to incur peril of confiscation in foreign parts. To trouble your lordships further with discourses which we had of making foreign coins current, and of varying the king's standard to weight, upon the variations in other states, and repressing the king's standard of foreign commodities, that our native commodities, surmounting the foreign, may draw in treasure by way of overplus; they be common places so well known to your lordships, as it is enough to mention them only.

There is only one thing more, which is, to put your lordships in mind of the extreme excess in the wasting of both metals, both of gold and silver foliate, which turns the nature of these metals, which ought to be perdurable, and makes them perishable, and by consumption must be a principal cause of scarcity in them both; which we conceive may receive a speedy remedy by his majesty's proclamation.

Lastly, We are humble suitors to your lordships, that for any of these propositions, that your lordships should think fit to entertain in consultations, your lordships would be pleased to hear them debated before yourselves, as being matters of greater weight than we are able to judge of. And so craving your lordships pardon for troubling you so long, we commend your lordships to God's goodness.





ADVICE to the KING,  
TOUCHING

MR. SUTTON'S ESTATE.

*May it please your Majesty,*

I Find it a positive precept of the old law, that there should be no sacrifice without salt: the moral whereof (besides the ceremony) may be, that God is not pleased with the body of a good intention, except it be seasoned with that spiritual wisdom and judgment, as it be not easily subject to be corrupted and perverted: for salt, in the Scripture, is a figure both of wisdom and lasting. This cometh into my mind upon this act of Mr. Sutton, which seemeth to me as a sacrifice without salt; having the materials of a good intention, but not powdered with any such ordinances and institutions as may preserve the same from turning corrupt, or at least from becoming unsavoury, and of little use. For though the choice of the scoffees be of the best, yet neither can they always live; and the very nature of the work itself, in the vast and unfit proportions thereof, being apt to provoke a mis-employment; it is no diligence of theirs (except there be a digestion from that model) that can excuse it from running the same way that gifts of like condition have heretofore done. For to design the Charterhouse, a building fit for a prince's habitation, for an hospital, is all one as if one should give in alms a rich embroidered cloak to a beggar. And certainly a man may see, *tantum quae oculis cernuntur*, that if such an edifice, with six thousand pounds revenue, be erected into one hospital, it will in small time degenerate to be made a preferment of some great person to be master, and he to take all the sweet, and the poor to be flinted, and take but the crums; as it comes to pass in divers hospitals of this realm, which have but the names of hospitals, and are only wealthy benefices in respect of the mastership; but the poor, which is the *propter quid*, little relieved. And the like hath been the fortune of much of the alms of the Roman religion in their great foundations, which being begun in vain-glory and ostentation, have had their judgment upon them, to end in corruption and abuse. This meditation hath made me presume to write these few lines to your majesty; being no better than good wishes, which your majesty's great wisdom may make something or nothing of.

Wherein I desire to be thus understood, that if this foundation (such as it is) be perfect and good in law, then I am too well acquainted with your majesty's disposition, to advise any course of power or profit that is not grounded upon a right: nay farther, if the defects be such as a court of equity may remedy and cure, then I wish that as St. Peter's shadow did cure diseases, so the very shadow of a good intention may cure defects of that nature. But if there be a right, and birth-right planted in the heir, and not remediable by courts of equity, and that right be submitted to your majesty, whereby it is both in your power and-grace what to do; then I do wish that this rude mass and chaos of a good deed were directed rather to a solid merit, and durable charity, than to a blaze of glory, that will but crackle a little in talk, and quickly extinguish.

And this may be done, observing the species of Mr. Sutton's intent, though varying in *individo*: for it appears that he had in notion a triple good, an hospital, and a school, and maintaining of a preacher: which individuals refer to these three general heads; relief of poor, advancement of learning, and propagation of religion. Now then if I shall set before your majesty, in every of these three kinds, what it is that is most wanting in your kingdom; and what is like to be the most fruitful and effectual use of such a benefice, and least like



## ADVICE ABOUT THE CHARTERHOUSE.

to be perverted; that, I think, shall be no ill scope of my labour, how meanly soever performed; for out of variety represented, election may be best grounded.

Concerning the relief of the poor; I hold some number of hospitals, with competent endowments, will do far more good than one hospital of an exorbitant greatness: for though the one course will be the more seen, yet the other will be the more felt. For if your majesty erect many, besides the observing the ordinary maxim, *Bonum, quo communius, eo melius*, choice may be made of those towns and places where there is most need, and so the remedy may be distributed as the disease is dispersed. Again, greatness of relief, accumulated in one place, doth rather invite a swarm and surcharge of poor, than relieve those that are naturally bred in that place; like to ill-tempered medicines, that draw more humour to the part than they evacuate from it. But chiefly I rely upon the reason that I touched in the beginning, that in these great hospitals the revenues will draw the use, and not the use the revenues; and so, through the mass of the wealth, they will swiftly tumble down to a mis-employment. And if any man say, that in the two hospitals in London there is a precedent of greatness concurring with good employment; let him consider that those hospitals have annual governors, that they are under the superior care and policy of such a state as the city of London; and chiefly, that their revenues consist not upon certainties, but upon casualties and free gifts; which gifts would be withheld, if they appeared once to be perverted; so as it keepeth them in a continual good behaviour and awe to employ them aright; none of which points do match with the present case.

The next consideration may be, whether this intended hospital, as it hath a more ample endowment than other hospitals have, should not likewise work upon a better subject than other poor; as that it should be converted to the relief of maimed soldiers, decayed merchants, householders aged, and destitute churchmen, and the like; whose condition, being of a better sort than loose people and beggars, deserveth both a more liberal stipend and allowance, and some proper place of relief, not intermingled or coupled with the basest sort of poor; which project, though specious, yet in my judgment, will not answer the designment in the event, in these our times. For certainly few men in any vocation, which have been somebody, and bear a mind somewhat according to the conscience and remembrance of that they have been, will ever descend to that condition, as to profess to live upon alms, and to become a corporation of de-chared beggars; but rather will chuse to live obscurely, and as it were to hide themselves with some private friends: so that the end of such an institution will be, that it will make the place a receptacle of the worst, idlest, and most dissolute persons of every profession, and to become a cell of loiterers, and cast serving-men, and drunkards, with scandal rather than fruit to the commonwealth. And of this kind I can find but one example with us, which is the alms-knights of Windsor; which particular would give a man small encouragement to follow that precedent.

Therefore the best effect of hospitals is, to make the kingdom, if it were possible, capable of that law, that there be no beggar in Israel: for it is that kind of people that is a burthen, an eye-sore, a scandal, and a seed of peril and tumult in the state. But chiefly it were to be wished, that such a beneficence towards the relief of the poor were so bestowed, as not only the mere and naked poor should be sustained, but also, that the honest person which hath hard means to live, upon whom the poor are now charged, should be in some sort eased: for that were a work generally acceptable to the kingdom, if the publick hand of alms might spare the private hand of tax: and therefore, of all other employments of that kind, I commend most houses of relief and correction, which are mixt hospitals, where the impotent person is relieved, and the sturdy beggar buckled to work; and the unable person also not maintained to be idle (which is ever joined with drunkenness and impurity) but is sorted with such work as he can manage and perform; and where the uses are not distinguished, as in other hospitals; whereof some are for aged and impotent, and some for children, and some for correction of vagabonds; but are general and promiscuous: so that they may



may take off poor of every sort from the country as the country breeds them; and thus the poor themselves shall find the provision, and other people the sweetness of the abatement of the tax. Now if it be objected, that houses of correction in all places have not done the good expected (as it cannot be denied, but in most places they have done much good) it must be remembered that there is a great difference between that which is done by the distracted government of justices of peace, and that which may be done by a settled ordinance, subject to a regular visitation, as this may be. And besides, the want hath been commonly in houses of correction of a competent and certain stock, for the materials of the labour, which in this case may be likewise supplied.

Concerning the advancement of learning, I do subscribe to the opinion of one of the wisest and greatest men of your kingdom: That for grammar schools there are already too many, and therefore no providence to add where there is excess; for the great number of schools which are in your highness's realm, doth cause a want, and doth cause likewise an overflow; both of them inconvenient, and one of them dangerous. For by means thereof they find want in the country and towns, both of servants for husbandry, and apprentices for trade: and on the other side, there being more scholars bred, than the state can prefer and employ; and the active part of that life not bearing a proportion to the preparative, it must needs fall out, that many persons will be bred unfit for other vocations, and unprofitable for that in which they are brought up; which fills the realm full of indigent, idle, and wanton people, which are but *materia rerum novarum*.

Therefore, in this point, I with Mr. Sutton's intention were exalted a degree; that that which he meant for teachers of children, your majesty should make for teachers of men; wherein it hath been my ancient opinion and observation, that in the universities of this realm (which I take to be of the best endowed universities of Europe) there is nothing more wanting towards the flourishing state of learning, than the honourable and plentiful salaries of readers in arts and professions. In which point, as your majesty's bounty already hath made a beginning, so this occasion is offered of God to make a proceeding. Surely, readers in the chair are as the parents in sciences, and deserve to enjoy a condition not inferior to their children that embrace the practical part; else no man will sit longer in the chair, than till he can walk to a better preferment: and it will come to pass as Virgil saith,

*Vt patrum invalidi referant jejunia nati.*

For if the principal readers, through the meanness of their entertainment, be but men of superficial learning, and that they shall take their place but in passage, it will make the mass of sciences want the chief and solid dimension, which is depth; and to become but pretty and compendious habits of practice. Therefore I could wish that in both the universities, the lectures as well of the three professions, divinity, law, and physick; as of the three heads of science, philosophy, arts of speech, and the mathematicks; were raised in their pensions unto 100*l. per annum* a-piece; which though it be not near so great as they are in some other places, where the greatness of the reward doth whistle for the ablest men out of all foreign parts to supply the chair; yet it may be a portion to content a worthy and able man; if he be likewise contemplative in nature, as those spirits are that are fittest for lectures. Thus may learning in your kingdom be advanced to a farther height; learning (I say) which under your majesty, the most learned of kings, may claim some degree of elevation.

Concerning propagation of religion, I shall in few words set before your majesty three propositions; none of them devices of mine own, otherwise than that I ever approved them; two of which have been in agitation of speech, and the third acted.

The first is a college for controversies, whereby we shall not still proceed single, but shall, as it were, double our files; which certainly will be found in the encounter.

The second is, a receipt (I like not the word seminary, in respect of the vain vows, and implicate obedience, and other things tending to the perturbation of states, involved in that term) for converts to the reformed religion, either of



youth or otherwise; for I doubt not but there are in Spain, Italy, and other countries of the papists, many whose hearts are touched with a sense of those corruptions, and an acknowledgment of a better way; which grace is many times smothered and choaked, through a worldly consideration of necessity and want; men not knowing where to have succour and refuge. This likewise I hold a work of great piety, and a work of great consequence; that we also may be wise in our generation; and that the watchful and silent night may be used as well for sowing of good seed, as of tares.

The third is, the imitation of a memorable and religious act of queen Elizabeth; who finding a part of Lancashire to be extremely backward in religion, and the benefices swallowed up in impropriations, did, by decree in the duchy, erect four stipends of 100 *l. per annum* a-piece for preachers well chosen to help the harvest; which have done a great deal of good in the parts where they have laboured. Neither do there want other corners in the realm, that would require for a time the like extraordinary help.

Thus have I briefly delivered unto your majesty, mine opinion, touching the employment of this charity; whereby that mass of wealth, which was in the owner little better than a stack or heap of muck, may be spread over your kingdom to many fruitful purposes; your majesty planting and watering, and God giving the encrease.





**S P E E C H**

Delivered by the King's Attorney,

**Sir F R A N C I S B A C C O N,**

**In the LOWER HOUSE,**

When the house was in great heat, and much troubled about the

**U N D E R T A K E R S ;**

Which were thought to be some able and forward gentlemen ; who, to ingratiate themselves with the king, were said to have undertaken, that the King's business should pass in that house as his majesty could wish.

[In the Parliament 12 JACOBI.]

*Mr. Speaker,*

**I** Have been hitherto silent in this matter of undertaking, wherein, as I perceive, the house is much enwrapped.

First, because (to be plain with you) I did not well understand what it meant, or what it was ; and I do not love to offer at that, that I do not thoroughly conceive. That private men should undertake for the commons of England ! why, a man might as well undertake for the four elements. It is a thing so giddy, and so vast, as cannot enter into the brain of a sober man : and especially in a new parliament ; when it was impossible to know who should be of the parliament : and when all men, that know never so little the constitution of this house, do know it to be so open to reason, as men do not know when they enter into these doors, what mind themselves will be of, until they hear things argued and debated. Much less can any man make a policy of assurance, what ship shall come safe home into the harbour in these seas. I had heard of undertakings in several kinds. There were undertakers for the plantations of Derry and Colerane in Ireland, the better to command and bridle those parts. There were, not long ago, some undertakers for the north-west passage : and now there are some undertakers for the project of dyed and dressed cloths ; and, in short, every novelty useth to be strengthened and made good by a kind of undertaking : but for the ancient parliament of England, which moves in a certain manner and sphere, to be undertaken, it passes my reach to conceive what it should be. Must we be all dyed and dressed, and no pure whites amongst us ? Or must there be a new passage found for the king's business by a point of the compass that was never failed by before ? Or must there be some forts built in this house that may command and contain the rest ? Mr. Speaker, I know but two forts in this house which the king ever hath ; the fort of affection, and the fort of reason : the one commands the hearts, and the other commands the heads ; and others I know none. I think *Æsop* was a wise man that described the nature of the fly that sat upon the spoke of the chariot wheel, and said to herself, " What a dust do I raise ? " So, for my part, I think that all this dust is raised by light rumours and buzzes, and not upon any solid ground.

The second reason that made me silent was, because this suspicion and rumour of undertaking settles upon no person certain. It is like the birds of Paradise that they have in the Indies, that have no feet ; and therefore they never light upon any place, but the wind carries them away : and such a thing do I take this rumour to be.

And



And lastly, when that the king had in his two several speeches freed us from the main of our fears, in affirming directly, that there was no undertaking to him; and that he would have taken it to be no less derogation to his own majesty than to our merits, to have the acts of his people transferred to particular persons; that did quiet me thus far, that these vapours were not gone up to the head, howsoever they might glow and effuate in the body.

Nevertheless, since I perceive that this cloud still hangs over the house, and that it may do hurt, as well in fame abroad as in the king's ear, I resolved with myself to do the part of an honest voice in this house, to counsel you what I think to be for the best.

Wherein first, I will speak plainly of the pernicious effects of the accident of this bruit and opinion of undertaking, towards particulars, towards the house, towards the king, and towards the people.

Secondly, I will tell you, in mine opinion, what undertaking is tolerable, and how far it may be justified with a good mind; and on the other side, this same ripping up of the question of undertakers, how far it may proceed from a good mind, and in what kind it may be thought malicious and dangerous.

Thirdly, I will give you my poor advice, what means there are to put an end to this question of undertaking; not falling for the present upon a precise opinion, but breaking it, how many ways there be by which you may get out of it, and leaving the choice of them to a debate at the committee.

And lastly, I will advise you how things are to be handled at the committee, to avoid distraction and loss of time.

For the first of these, I can say to you but as the Scripture saith, *Si invicem morietis, ab invicem consumemini*; if ye fret and gall one another's reputation, the end will be, that every man shall go hence, like coin cried down, of less price than he came hither. If some shall be thought to fawn upon the king's business openly, and others to cross it secretly, some shall be thought practisers that would pluck the cards, and others shall be thought papists that would shuffle the cards: what a misery is this, that we should come together to fool one another, instead of procuring the publick good!

And this ends not in particulars, but will make the whole house contemptible: for now I hear men say, that this question of undertaking is the predominant matter of this house. So that we are now, according to the parable of Jotham in the case of the trees of the forest, that when question was, Whether the vine should reign over them? that might not be: and whether the olive should reign over them? that might not be: but we have accepted the bramble to reign over us. For it seems that the good vine of the king's graces, that is not so much in esteem; and the good oil, whereby we should salve and relieve the wants of the estate and crown, that is laid aside too: and this bramble of contention and emulation; this Abimelech, which (as was truly said by an understanding gentleman) is a bastard (for every fame that wants a head, is *filius populi*) this must reign and rule amongst us.

Then for the king, nothing can be more opposite, *ex diametro*, to his ends and hopes, than this: for you have heard him profess like a king, and like a gracious king, that he doth not so much respect his present supply, as this demonstration that the people's hearts are more knit to him than before. Now then if the issue shall be this, that whatsoever shall be done for him, shall be thought to be done but by a number of persons that shall be laboured and packed; this will rather be a sign of diffidence and alienation, than of a natural benevolence and affection in his people at home; and rather matter of disputation, than of honour abroad. So that, to speak plainly to you, the king were better call for a new pair of cards, than play upon these if they be packed.

And then for the people, it is my manner ever to look as well beyond a parliament, as upon a parliament; and if they abroad shall think themselves betrayed by those that are their deputies and attorneys here, it is true we may bind them and conclude them, but it will be with such murmur and insatisfaction as I would be loath to see.



These things might be dissembled, and so things left to bleed inwards; but that is not the way to cure them. And therefore I have searched the sore, in hope that you will endeavour the medicine.

But this to do more thoroughly, I must proceed to my second part, to tell you clearly and distinctly what is to be set on the right hand, and what on the left in this business.

First, if any man hath done good offices to advise the king to call a parliament, and to increase the good affection and confidence of his majesty towards his people; I say, that such a person doth rather merit well, than commit any error. Nay farther, if any man hath, out of his own good mind, given an opinion touching the minds of the parliament in general; how it is probable they are like to be found, and that they will have a due feeling of the king's wants, and will not deal drily or illiberally with him; this man, that doth but think of other mens minds, as he finds his own, is not to be blamed. Nay farther, if any man hath coupled this with good wishes and propositions, that the king do comfort the hearts of his people, and testify his own love to them, by siling off the harshness of his prerogative, retaining the substance and strength; and to that purpose, like the good householder in the Scripture, that brought forth old store and new, hath revolved the petitions and propositions of the last parliament, and added new; I say, this man hath sown good seed; and he that shall draw him into envy for it, sows tares. Thus much of the right hand. But on the other side, if any shall mediately or immediately infuse into his majesty, or to others, that the parliament is, as Cato said of the Romans, "like sheep, that a man were better drive a flock of them than one of them;" and however, they may be wise men severally, yet in this assembly they are guided by some few, which, if they be made and assured, the rest will easily follow: this is a plain robbery of the king of honour, and his subjects of thanks, and it is to make the parliament vile and servile in the eyes of their sovereign; and I count it no better than a supplanting of the king and kingdom. Again, if a man shall make this impression, that it shall be enough for the king to send us some things of shew that may serve for colours, and let some eloquent tales be told of them, and that will serve *ad faciendum populum*; any such person will find that this house can well skill of false lights, and that it is no wooing tokens, but the true love already planted in the breasts of the subjects, that will make them do for the king. And this is my opinion touching those that may have persuaded a parliament. Take it on the other side (for I mean in all things to deal plainly) if any man hath been dissident touching the call of a parliament, thinking that the best means were, first for the king to make his utmost trial to consist of himself, and his own means; I say, an honest and faithful heart might consent to that opinion, and the event, it seems, doth not greatly discredit it hitherto. Again, if any man shall have been of opinion, that it is not a particular party that can bind the house; nor, that it is not shews or colours can please the house; I say, that man, though his speech tend to discouragement, yet it is coupled with providence. But, by your leave, if any man, since the parliament was called, or when it was in speech, shall have laid plots to cross the good will of the parliament to the king, by possessing them that a few shall have the thanks, and that they are (as it were) bought, and sold, and betrayed; and that that, which the king offers them are but baits prepared by particular persons; or have raised rumours that it is a packed parliament; to the end nothing may be done, but that the parliament may be dissolved (as gamblers use to call for new cards, when they mistrust a pack;) I say, these are engines and devices, naught, malign, and seditious.

Now for the remedy; I shall rather break the matter, as I said in the beginning, than advise positively. I know but three ways. Some message of declaration to the king. Some entry or protestation amongst ourselves; or some strict and punctual examination. As for the last of these, I assure you I am not against it, if I could tell where to begin, or where to end. For certainly I have often seen it, that things when they are in smother trouble more than when they break out. Smoke blinds the eyes, but when it blazeth forth into flame it gives light



light to the eyes. But then if you fall to an examination, some person must be charged, some matter must be charged; and the manner of that matter must be likewise charged; for it may be in a good fashion, and it may be in a bad, in as much difference as between black and white: and then how far men will ingenuously confess, how far they will politically deny, and what we can make and gather upon their confession, and how we shall prove against their denial; it is an endless piece of work, and I doubt that we shall grow weary of it.

For a message to the king, it is the course I like best, so it be carefully and considerably handled: for if we shall represent to the king the nature of this body as it is, without the veils or shadows that have been cast upon it, I think we shall do him honour, and ourselves right.

For any thing that is to be done amongst ourselves, I do not see much gained by it, because it goes no farther than ourselves; yet if any thing can be wisely conceived to that end, I shall not be against it; but I think the purpose of it is fittest to be, rather that the house conceives that all this is but a misunderstanding, than to take knowledge that there is indeed a just ground, and then to seek, by a protestation, to give it a remedy. For protestations, and professions, and apologies, I never found them very fortunate; but they rather encrease suspicion than clear it.

Why then the last part is, that these things be handled at the committee seriously and temperately; wherein I wish that these four degrees of questions were handled in order.

First, whether we shall do any thing at all in it, or pass by it, and let it sleep?

Secondly, whether we shall enter into a particular examination of it?

Thirdly, whether we shall content ourselves with some entry or protestation among ourselves?

And fourthly, whether we shall proceed to a message to the king; and what?

Thus I have told you my opinion. I know it had been more safe and politic to have been silent; but it is perhaps more honest and loving to speak. The old verse is, *Nam nulli tacuisse nocet, nocet esse locutum.* But, by your leave, David saith, *Silui a bonis, et dolor meus renovatus est.* When a man speaketh, he may be wounded by others; but if he hold his peace from good things, he wounds himself. So I have done my part, and leave it to you to do that which you shall judge to be the best.



( 699 )

# HIS LORDSHIP'S SPEECH

In the PARLIAMENT,

BEING

LORD CHANCELLOR,

TO THE

SPEAKER'S EXCUSE.

Mr. Serjeant RICHARDSON,

**T**HE king hath heard and observed your grave and decent speech, tending to the excuse and disablement of yourself for the place of speaker. In answer whereof, his majesty hath commanded me to say to you, that he doth in no sort admit of the same.

First, Because if the party's own judgment should be admitted in case of elections, touching himself, it would follow, that the most confident and overweening persons would be received; and the most considerate men, and those that understand themselves best, should be rejected.

Secondly, His majesty doth so much rely upon the wisdoms and discretions of those of the house of commons, that have chosen you with an unanimous consent, that his majesty thinks not good to swerve from their opinion in that wherein themselves are principally interested.

Thirdly, You have disabled yourself in so good and decent a fashion, as the manner of your speech hath destroyed the matter of it.

And therefore the king doth allow of the election, and admit you for speaker.

## To the SPEAKER'S ORATION.

Mr. SPEAKER,

**T**HE king hath heard and observed your eloquent discourse, containing much good matter and much good will: wherein you must expect from me such an answer only as is pertinent to the occasion, and compassed by due respect of time.

I may divide that which you have said into four parts.

The first was a commendation, or laudative of monarchy.

The second was indeed a large field, containing a thankful acknowledgment of his majesty's benefits, attributes, and acts of government.

The third was some passages touching the institution and use of parliaments.

The fourth and last was certain petitions to his majesty on the behalf of the house and yourself.

For your commendation of monarchy, and preferring it before other estates, it needs no answer: the schools may dispute it; but time hath tried it, and we find it to be the best. Other states have curious frames soon put out of order; and they that are made fit to last, are not commonly fit to grow or spread: and contrariwise those that are made fit to spread and enlarge, are not fit to continue and endure. But monarchy is like a work of nature, well composed both to grow and to continue. From this I pass.

For the second part of your speech, wherein you did with no less truth than affection acknowledge the great felicity which we enjoy by his majesty's reign and government, his majesty hath commanded me to say unto you, that praises and thanksgivings



thanksgivings he knoweth to be the true oblations of hearts and loving affections: but that which you offer him he will join with you, in offering it up to God, who is the author of all good; who knoweth also the uprightness of his heart; who he hopeth will continue and encrease his blessings both upon himself and his posterity, and likewise upon his kingdoms and the generations of them.

But I for my part must say unto you, as the Grecian orator said long since in the like case: *Solus dignus harum rerum laudator tempus*; Time is the only commander and encommasick worthy of his majesty and his government.

Why time? For that in the revolution of so many years and ages, as have passed over this kingdom; notwithstanding, many noble and excellent effects were never produced until his majesty's days, but have been reserved as proper and peculiar unto them.

And because this is no part of a panegyrick, but merely story, and that they be so many articles of honour fit to be recorded, I will only mention them, extracting part of them out of that you, Mr. Speaker, have said: they be in number eight.

First, His majesty is the first (as you noted it well) that hath laid *lap's angularis*, the corner stone of these two mighty kingdoms of England and Scotland, and taken away the wall of separation: whereby his majesty is become the monarch of the most puissant and military nations of the world; and, if one of the ancient wise men was not deceived, iron commands gold.

Secondly, The plantation and reduction to civility of Ireland (the second island of the ocean Atlantick) did by God's providence wait for his majesty's times; being a work resembling indeed the works of the ancient heroes: no new piece of that kind in modern times.

Thirdly, This kingdom now first in his majesty's times hath gotten a lot or portion in the new world by the plantation of Virginia and the summer islands. And certainly it is with the kingdoms on earth as it is in the kingdom of heaven: sometimes a grain of mustard-seed proves a great tree. Who can tell?

Fourthly, His majesty hath made that truth which was before titularly, in that he hath verified the style of defender of the faith: wherein his majesty's pen hath been so happy, as though the deaf adder will not hear, yet he is charmed that he doth not hiss. I mean in the graver sort of those that have answered his majesty's writings.

Fifthly, It is most certain, that since the conquest, ye cannot assign twenty years (which is the time that his majesty's reign now draws fast upon) of inward and outward peace. Inasmuch, as the time of queen Elizabeth, of happy memory, and always magnified for a peaceable reign, was nevertheless interrupted the first twenty years with a rebellion in England; and both first and last twenty years with rebellions in Ireland. And yet I know, that his majesty will make good both his words, as well that of *Nemo me lacessit impune*, as that other of *Beati pacifici*.

Sixthly, That true and primitive office of kings, which is, to sit in the gate and to judge the people, was never performed in like perfection by any of the king's progenitors: whereby his majesty hath shewed himself to be *lex loquens*, and to sit upon the throne, not as a dumb statue, but as a speaking oracle.

Seventhly, For his majesty's mercy (as you noted it well) shew me a time wherein a king of this realm hath reigned almost twenty years (as I said) in his white robes without the blood of any peer of this kingdom: the axe turned once or twice towards a peer, but never struck.

Lastly, The flourishing of arts and sciences re-created by his majesty's countenance and bounty, was never in that height, especially that art of arts, divinity: for that we may truly to God's great glory confess, that since the primitive times, there were never so many stars (for so the Scripture calleth them) in that firmament.

These things, Mr. Speaker, I have partly chosen out of your heap, and are so far from being vulgar, as they are in effect singular and proper to his majesty and his times. So that I have made good, as I take it, my first assertion; that the



the only worthy commender of his majesty is time: which hath so set off his majesty's merits by the shadows of comparison, as it passeth the lustre of commendation of words.

How then shall I conclude? Shall I say, *O fortunatos nimium sua si bona norint?* No, for I see ye are happy in enjoying them, and happy again in knowing them. But I will conclude this part with that saying, turned to the right hand: *Si gratum dixeris, omnia dixeris.* Your gratitude contains in a word all that I can say to you touching this parliament.

Touching the third point of your speech, concerning parliaments, I shall need to say little: for there was never that honour done to the institution of parliament, that his majesty did it in his last speech, making it in effect the perfection of monarchy; for that although monarchy was the more ancient, and be independent, yet by the advice and assistance of parliament it is the stronger and the surer built.

And therefore I shall say no more of this point; but as you, Mr. Speaker, did well note, that when the king sits in parliament, and his prelates, peers, and commons attend him, he is in the exaltation of his orb: so I wish things may be so carried, that he may be then in greatest serenity and benignity of aspect; shining upon his people both in glory and grace. Now you know well, that the shining of the sun fair upon the ground, whereby all things exhilarate and do fructify, is either hindered by clouds above, or mists below; perhaps by brambles and briars that grow upon the ground itself. All which I hope at this time will be dispelled and removed.

I come now to the last part of your speech, concerning the petitions: but before I deliver his majesty's answer respectively in particular, I am to speak to you some few words in general; wherein, in effect, I shall but glean, his majesty having so excellently and fully expressed himself.

For that, that can be spoken pertinently, must be either touching the subject or matter of parliament business; or of the manner and carriage of the same; or lastly of the time and the husbanding and marshalling of time.

For the matters to be handled in parliament, they are either of church, state, laws, or grievances.

For the first two, concerning church or state, ye have heard the king himself speak; and as the Scripture saith, *Who is he that in such things shall come after the king?* For the other two, I shall say somewhat, but very shortly.

For laws, they are things proper for your own element; and therefore therein ye are rather to lead than to be led. Only it is not amiss to put you in mind of two things: the one, that ye do not multiply or accumulate laws more than ye need. There is a wise and learned civilian that applies the curle of the prophet, *Pluit super eos laqueos*, to multiplicity of laws: for they do but entangle and entangle the people. I wish rather, that ye should either revive good laws that are fallen and discontinued, or provide against the slack execution of laws which are already in force; or meet with the subtle evasions from laws which time and craft hath undermined, than to make *novas creaturas legum*, laws upon a new mould.

The other point, touching laws, is, that ye busy not yourselves too much in private bills, except it be in cases wherein the help and arm of ordinary justice is too short.

For grievances, his majesty hath with great grace and benignity opened himself. Nevertheless the limitations, which may make up your grievances not to beat the air only, but to sort to a desired effect, are principally two. The one (to use his majesty's term) that ye do not hunt after grievances, such as may seem rather to be stirred here when ye are met, than to have sprung from the desires of the country: ye are to represent the people; ye are not to personate them.

The other, that ye do not heap up grievances as if numbers should make a new where the weight is small; or as if all things amiss (like Plato's commonwealth) should be remedied at once. It is certain, that the best governments, yea, and the best men are like the best precious stones, wherein every flaw or  
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icicle or grain are seen and noted more than in those that are generally foul and corrupted.

Therefore contain yourselves within that moderation as may appear to bend rather to the effectual ease of the people, than to a discursive envy, or scandal upon the state.

As for the manner of carriage of parliament business, ye must know, that ye deal with a king that hath been longer king than any of you have been parliament men; and a king that is no less sensible of forms than of matter; and is as far from enduring diminution of majesty, as from regarding flattery or vain-glory; and a king that understandeth as well the pulse of the hearts of people as his own orb. And therefore, both let your grievances have a decent and reverend form and style; and (to use the words of former parliaments) let them be *tantum geminus columbae*, without pique or harshness: and on the other side, in that ye do for the king, let it have a mark of unity, alacrity, and affection; which will be of this force, that whatsoever ye do in substance, will be doubled in reputation abroad, as in a crystal glass.

For the time, if ever parliament was to be measured by the hour-glass, it is this; in regard of the instant occasion flying away irrecoverably. Therefore let your speeches in the house be the speeches of counsellors, and not of orators; let your committees tend to dispatch, not to dispute; and so marshal the times as the public business, especially the proper business of the parliament be put first, and private bills be put last, as time shall give leave, or within the spaces of the publick.

For the four petitions, his majesty is pleased to grant them all as liberally as the ancient and true custom of parliament doth warrant, and with the cautions that have ever gone with them; that is to say, That the privilege be not used for defrauding of creditors and defeating of ordinary justice: that liberty of speech turn not into licence, but be joined with that gravity and discretion, as may taste of duty and love to your sovereign, reverence to your own assembly, and respect to the matters ye handle: that your accesses be at such fit times, as may stand best with his majesty's pleasure and occasions: that mistakings and misunderstandings be rather avoided and prevented (as much as may be) than salved or cleared.



OF THE  
TRUE GREATNESS  
OF THE  
KINGDOM OF BRITAIN.  
TO KING JAMES.

*Fortunatos nimium sua si bona norint.*

THE greatness of kingdoms and dominions in bulk and territory doth fall under measure and demonstration that cannot err : but the just measure and estimate of the forces and power of an estate is a matter, than the which there is nothing among civil affairs more subject to error, nor that error more subject to perilous consequence. For hence may proceed many inconsiderate attempts and insolent provocations in states that have too high an imagination of their own forces : and hence may proceed, on the other side, a toleration of many fair grievances and indignities, and a loss of many opportunities, in states that are not sensible enough of their own strength. Therefore, that it may the better appear what greatness your majesty hath obtained of God, and what greatness this island hath obtained by you, and what greatness it is, that by the gracious pleasure of almighty God you shall leave and to transmit your children and generations as the first founder ; I have thought good, as far as I can comprehend, to make a true survey and representation of the greatness of this your kingdom of Britain ; being for mine own part persuaded, that the supposed prediction, *Vide solem orientem in occidente*, may be no less true a vision applied to Britain, than to any other kingdom of Europe ; and being out of doubt that none of the great monarchies, which in the memory of times have risen in the habitable world, had so fair seeds and beginnings as hath this your estate and kingdom, whatsoever the event shall be, which must depend upon the dispensation of God's will and providence, and his blessing upon your descendants. And because I have no purpose vainly or assentatorily to represent this greatness, as in water, which shews things bigger than they are, but rather, as by an instrument of art, helping the sense to take a true magnitude and dimension : therefore I will use no hidden order, which is fitter for insinuations than sound proofs, but a clear and open order. First by confuting the errors, or rather correcting the excesses of certain immoderate opinions, which ascribe too much to some points of greatness, which are not so essential, and by reducing those points to a true value and estimation : then by propounding and confirming those other points of greatness which are more solid and principal, though in popular discourse less observed : and incidently by making a brief application, in both these parts, of the general principles and positions of policy unto the state and condition of these your kingdoms. Of these the former part will branch itself into these articles.

First, That in the measuring or balancing of greatness, there is commonly too much ascribed to largeness of territory.

Secondly, That there is too much ascribed to treasure or riches.

Thirdly, That there is too much ascribed to the fruitfulness of the soil, or affluence of commodities.

And fourthly, That there is too much ascribed to the strength and fortification of towns, or holds.



## OF THE TRUE GREATNESS

The latter will fall into this distribution :

First, That true greatness doth require a fit situation of the place or region.

Secondly, That true greatness consisteth essentially in population and breed of men.

Thirdly, that it consisteth also in the valour and military disposition of the people it breedeth ; and in this, that they make profession of arms.

Fourthly, That it consisteth in this point, that every common subject by the poll be fit to make a soldier, and not only certain conditions or degrees of men.

Fifthly, That it consisteth in the temper of the government fit to keep the subjects in good heart and courage, and not to keep them in the condition of servile vassals.

And sixthly, That it consisteth in the commandment of the sea.

AND let no man so much forget the subject propounded, as to find strange, that here is no mention of religion, laws, policy. For we speak of that which is proper to the amplitude and growth of states, and not of that which is common to their preservation, happiness, and all other points of well-being. First, therefore, touching largeness of territories, the true greatness of kingdoms upon earth is not without some analogy with the kingdom of heaven, as our Saviour describes it : which he doth resemble, not to any great kernel or nut, but to one of the least grains ; but yet such a one, as hath a property to grow and spread. For as for large countries and multitude of provinces, they are many times rather matters of burden than of strength, as may manifestly appear both by reason and example. By reason thus. There be two manners of securing of large territories, the one by the natural arms of every province, and the other, by the protecting arms of the principal estate, in which case commonly the provincials are held disarmed. So are there two dangers incident unto every estate, foreign invasion, and inward rebellion. Now such is the nature of things, that these two remedies of estate do fall respectively into these two dangers, in case of remote provinces. For if such an estate rest upon the natural arms of the provinces, it is sure to be subject to rebellion or revolt ; if upon protecting arms, it is sure to be weak against invasion : neither can this be avoided.

Now for examples, proving the weakness of states possessed of large territories, I will use only two, eminent and selected. The first shall be of the kingdom of Persia, which extended from Egypt, inclusive, unto Bactria, and the borders of the East India ; and yet nevertheless was over-run and conquered, in the space of seven years, by a nation not much bigger than this isle of Britain, and newly grown into name, having been utterly obscure till the time of Philip the son of Amyntas. Neither was this effected by any rare or heroic prowess in the conqueror, as is vulgarly conceived (for that Alexander the Great goeth now for one of the wonders of the world ; ) for those that have made a judgment grounded upon reason of estate, do find that conceit to be merely popular, for so Livy pronounceth of him, *Nil aliud quam bene ausus vana contemere*. Wherein he judgeth of vastness of territory as a vanity that may assist a weak mind, but no ways trouble a sound resolution. And those that are conversant attentively in the histories of those times, shall find that this purchase which Alexander made and compassed, was offered by fortune twice before to others, though by accident they went not through with it ; namely, to Agestilaus, and Jason of Thessaly : for Agestilaus, after he had made himself master of most of the low provinces of Asia, and had both design and commission to invade the higher countries, was diverted and called home upon a war excited against his country by the states of Athens and Thebes, being incensed by their orators and counsellors, which were bribed and corrupted from Persia, as Agestilaus himself avouched pleasantly, when he said, That an hundred thousand archers of the king of Persia had driven him home : understanding it, because an archer was the stamp upon the Persian coin of gold. And Jason of Thessaly, being a man born to no greatness, but one that made a fortune of himself, and had obtained by his own vivacity of spirit, joined with the opportunities of



of time, a great army compounded of volunteers and adventurers, to the terror of all Græcia, that continually expected where that cloud would fall; disclosed himself in the end, that his design was for an expedition into Persia (the same which Alexander not many years after achieved) wherein he was interrupted by a private conspiracy against his life, which took effect. So that it appeareth, as was said, that it was not any miracle of accident, that raised the Macedonian monarchy, but only the weak composition of that vast state of Persia, which was prepared for a prey to the first resolute invader.

The second example that I will produce, is of the Roman empire, which had received no diminution in territory, though great in virtue and forces, till the time of Jovianus. For so it was alleged by such as opposed themselves to the rendering Nisibis upon the dishonourable retreat of the Roman army out of Persia. At which time it was avouched, that the Romans, by the space of 800 years, had never, before that day, made any cession or renunciation to any part of their territory, whereof they had once had a constant and quiet possession. And yet, nevertheless, immediately after the short reign of Jovianus, and towards the end of the joint reign of Valentinianus and Valens, which were his immediate successors, and much more in the times succeeding, the Roman empire, notwithstanding the magnitude thereof, became no better than a carcass, whereupon all the vultures, and birds of prey of the world, did seize and ravine for many ages, for a perpetual monument of the essential difference between the scale of miles, and the scale of forces. And therefore, upon these reasons and examples, we may safely conclude, that largeness of territory is so far from being a thing inseparable from greatness of power, as it is many times contrariant and incompatible with the same. But to make a reduction of that error to a truth, it will stand thus, that then greatness of territory addeth strength, when it hath these four conditions:

First, That the territories be compacted, and not dispersed.

Secondly, That the region which is the heart and seat of the state, be sufficient to support those parts, which are but provinces and additions.

Thirdly, That the arms or martial virtue of the state be in some degree answerable to the greatness of dominion.

And lastly, That no part or province of the state be utterly unprofitable, but do confer some use or service to the state.

The first of these is manifestly true, and scarcely needeth any explication. For if there be a state that consisteth of scattered points instead of lines, and slender lines instead of latitudes, it can never be solid, and in the solid figure is strength. But what speak we of mathematical principles? The reason of state is evident, that if the parts of an estate be disjointed and remote, and so be interrupted with the provinces of another sovereignty; they cannot possibly have ready succours in case of invasion, nor ready suppression in case of rebellion, nor ready recovery in case of loss or alienation by either of both means. And therefore we see what an endless work the king of Spain hath had to recover the Low Countries, although it were to him patrimony and not purchase; and that chiefly in regard of the great distance. So we see that our nation kept Calais a hundred years space after it lost the rest of France, in regard of the near situation; and yet in the end they that were nearer, carried it by surprize, and over-ran succour.

Therefore Titus Quintius made a good comparison of the state of the Achæans to a tortoise, which is safe when it is retired within the shell, but if any part be put forth, then the part exposed endangereth all the rest. For so it is with states that have provinces dispersed, the defence whereof doth commonly consume and decay, and sometimes ruin the rest of the estate. And so likewise we may observe, that all the great monarchies, the Persians, the Romans (and the like of the Turks) they had not any provinces to the which they needed to demand access through the country of another: neither had they any long ranges or narrow angles of territory, which were environed or clasped in with foreign states; but their dominions were continued and entire, and had thickness and squareness in their orb or contents. But these things are without contradiction.



For the second, concerning the proportion between the principal region, and those which are but secondary, there must ever more distinction be made between the body or stem of the tree, and the boughs and branches. For if the top be over great, and the stalk too slender, there can be no strength. Now, the body is to be accounted so much of an estate, as is not separated or distinguished with any mark of foreigners, but is united specially with the bond of naturalization; and therefore we see that when the state of Rome grew great, they were enforced to naturalize the Latins or Italians, because the Roman stem could not bear the provinces and Italy both as branches: and the like they were contented after to do to most of the Gauls. So on the contrary part we see in the state of Lacedæmon, which was nice in that point, and would not admit their confederates to be incorporate with them, but rested upon the natural-born subjects of Sparta, how that a small time after they had embraced a larger empire, they were presently surcharged, in respect to the slenderness of the stem. For so in the defection of the Thebans and the rest against them, one of the principal revolvers spake most aptly, and with great efficacy in the assembly of the associates, telling them, That the state of Sparta was like a river, which, after that it had run a great way, and taken other rivers and streams into it, ran strong and mighty, but about the head and fountain of it was shallow and weak; and therefore advised them to assail and invade the main of Sparta, knowing they should there find weak resistance either of towns or in the field: of towns, because upon confidence of their greatness they fortified not upon the main; in the field, because their people was exhaust by garrisons and services far off.

Which counsel proved sound, to the astonishment of all Græcia at that time. For the third, concerning the proportion of the military forces of a state to the amplitude of empire, it cannot be better demonstrated than by the two first examples, which we produced of the weakness of large territory, if they be compared within themselves according to difference of time. For Persia at a time was strengthened with large territory, and at another time weakened; and so was Rome. For while they flourished in arms, the largeness of territory was a strength to them, and added forces, added treasures, added reputation: but when they decayed in arms, then greatness became a burden. For their protecting forces did corrupt, supplant, and enervate the natural and proper forces of all their provinces, which relied and depended upon the succours and directions of the state above. And when that waxed impotent and slothful, then the whole state laboured with her own magnitude, and in the end fell with her own weight. And that no question was the reason of the strange inundations of people which both from the east and northwest overwhelmed the Roman empire in one age of the world, which a man upon the sudden would attribute to some constellation or fatal revolution of time, being indeed nothing else but the declination of the Roman empire, which having effeminated and made vile the natural strength of the provinces, and not being able to supply it by the strength imperial and sovereign, did, as a lure cast abroad, invite and entice all the nations adjacent, to make their fortunes upon her decays. And by the same reason, there cannot but ensue a dissolution to the state of the Turk, in regard of the largeness of empire, whensoever their martial virtue and discipline shall be further relaxed, whereof the time seemeth to approach. For certainly like as great stature in a natural body is some advantage in youth, but is but burden in age; so it is with great territory, which when a state beginneth to decline, doth make it stoop and buckle so much the faster.

For the fourth and last, it is true, that there is to be required and expected as in the parts of a body, so in the members of a state, rather propriety of service, than equality of benefit. Some provinces are more wealthy, some more populous, and some more warlike; some situate aptly for the excluding or expelling of foreigners, and some for the annoying and bridling of suspected and tumultuous subjects; some are profitable in present, and some may be converted and improved to profit by plantations and good policy. And therefore true consideration of estate can hardly find what to reject, in matter of territory, in any empire, except it be some glorious acquets obtained sometime in the bravery of



wars, which cannot be kept without excessive charge and trouble; of which kind were the purchases of king Henry VIII. that of Tournay, and that of Bologne; and of the same kind are infinite other the like examples almost in every war, which for the most part upon treaties of peace are restored.

Thus have we now defined where the largeness of territory addeth true greatness, and where not. The application of these positions unto the particular supposition of this your majesty's kingdom of Britain, requireth few words. For, as I professed in the beginning, I mean not to blazon or amplify, but only to observe and expreis matter.

First, Your majesty's dominion and empire comprehendeth all the islands of the north-west ocean, where it is open, until you come to the imbarred or frozen sea, towards Iceland; in all which tract, it hath no intermixture or interposition of any foreign land, but only of the sea, whereof you are also absolutely master.

Secondly, The quantity and content of these countries is far greater than have been the principal or fundamental regions of the greatest monarchies, greater than Persia proper, greater than Macedon, greater than Italy. So as here is potentially body and stem enough for Nabuchodonosor's tree, if God should have so ordained.

Thirdly, The prowess and valour of your subjects is able to master and wield far more territory than falleth to their lot. But that followeth to be spoken of in the proper place.

And lastly, it must be confessed, that whatsoever part of your countries and regions shall be counted the meanest, yet is not inferior to those countries and regions, the people whereof some ages since over-ran the world. We see further by the uniting of the continent of this island, and the shutting up of the poster (as it was not unfitly termed) all entrance of foreigners is excluded: and we see again, that by the fit situation and configuration of the north of Scotland toward the north of Ireland, and the reputation, commodity, and terror thereof, what good effects have ensued for the better quieting of the troubles of Ireland. And so we conclude this first branch touching largeness of territory.

The second article was,

That there is too much ascribed to treasure or riches in the balancing of greatness.

Wherein no man can be ignorant of the idolatry that is generally committed in these degenerate times to money, as if it could do all things publick and private: but leaving popular errors, this is likewise to be examined by reason and examples, and such reason, as is no new conceit or invention, but hath formerly been discerned by the sounder sort of judgments. For we see that Solon, who was no contemplative wise man, but a statesman and a lawgiver, used a memorable sentence to Croesus, when he shewed him great treasures, and store of gold and silver that he had gathered, telling him, that whensoever another should come that had better iron than he, he would be master of all his gold and silver. Neither is the authority of Machiavel to be despised, specially in a matter whereof he saw the evident experience before his eyes in his own times and country, who derideth the received and current opinion and principle of estate taken first from a speech of Mutianus the lieutenant of Vespasian, That money was the sinews of war; affirming, that it is a mockery, and that there are no other true sinews of war, but the sinews and muscles of mens arms: and that there was never any war, wherein the more valiant people had to deal with the more wealthy, but that the war, if it were well conducted, did nourish and pay itself. And had he not reason so to think, when he saw a needy, and ill-provided army of the French (though needy rather by negligence, than want of means, as the French manner oftentimes is) make their passage only by the reputation of their swords by their sides undrawn, thorough the whole length of Italy (at that time abounding in wealth after a long peace) and that without resistance, and to seize and leave what countries and places it pleased them? But it was not the experience of that time alone, but the records of all times that do concur to falsify that conceit, that wars are decided not by the sharpest sword, but by the greatest purse. And that very text or saying of Mutianus which was the original of this opinion, is



misvouched, for his speech was, *Pecunie sunt nervi belli civilis*, which is true, for that civil wars cannot be between people of differing valour; and again because in them men are as oft bought as vanquished. But in case of foreign wars, you shall scarcely find any of the great monarchies of the world, but have had their foundations in poverty and contemptible beginnings, being in that point also conform to the heavenly kingdom, of which it is pronounced, *Regnum Dei non venit cum observatione*. Persia, a mountainous country, and a poor people in comparison of the Medes, and other provinces which they subdued. The state of Sparta, a state wherein poverty was enacted by law and ordinance; all use of gold and silver and rich furniture being interdicted. The state of Macedonia, a state mercenary and ignoble until the time of Philip. The state of Rome, a state that had poor and pastoral beginnings. The state of the Turks, which hath been since the terror of the world, founded upon a transmigration of some bands of Sarmatian Scythes, that descended in a vagabond manner upon the province that is now termed Turcomania; out of the remnants whereof, after great variety of fortune, sprang the Othoman family. But never was any position of estate so visibly and substantially confirmed as this, touching the preheminance, yea and predominancy of valour above treasure, as by the two descents and inundations of necessitous and indigent people, the one from the east, and the other from the west, that of the Arabians or Saracens, and that of the Goths, Vandals, and the rest: who, as if they had been the true inheritors of the Roman empire, then dying, or at least grown impotent and aged, entered upon Egypt, Asia, Græcia, Africk, Spain, France, coming to these nations, not as to a prey, but as to a patrimony; not returning with spoil, but seating and planting themselves in a number of provinces, which continue their progeny, and bear their names till this day. And all these men had no other wealth but their adventures, nor no other title but their swords, nor no other press but their poverty. For it was not with most of these people as it is in countries reduced to a regular civility, that no man almost marieth except he see he have means to live; but population went on, howsoever sustentation followed, and taught by necessity, as some writers report, when they found themselves surcharged with people, they divided their inhabitants into three parts, and one third, as the lot fell, was sent abroad and left to their adventures. Neither is the reason much unlike (though the effect hath not followed in regard of a special diversion) in the nation of the Swisses, inhabiting a country, which in regard of the mountainous situation, and the popular estate, doth generate faster than it can sustain. In which people, it well appeared what an authority iron hath over gold at the battle of Granfon, at what time one of the principal jewels of Burgundy was sold for twelve pence, by a poor Swiss, that knew no more a precious stone, than did Alop's cock. And although this people have made no plantations with their arms, yet we see the reputation of them such, as not only their forces have been employed and waged, but their alliance sought and purchased, by the greatest kings and states of Europe. So as though fortune, as it fares sometimes with princes to their servants, hath denied them a grant of lands, yet she hath granted them liberal pensions, which are made memorable and renowned to all posterity, by the event which ensued to Lewis the twelfth; who, being pressed unceasingly by message from them for the inhancing their pensions, entered into choler and broke out into these words, "What! will these villains of the mountains put a tax upon me?" which words cost him his dutchy of Milan, and utterly ruined his affairs in Italy. Neither were it indeed possible at this day, that that nation should subsist without descents and impressions upon their neighbours, were it not for the great utterance of people which they make into the services of foreign princes, and estates, thereby discharging not only number, but in that number such spirits as are most stirring and turbulent.

And therefore we may conclude, that as largeness of territory, severed from military virtue, is but a burden; so, that treasure and riches severed from the faste, is but a prey. It reflecth therefore to make a reduction of this error also unto a truth by distinction and limitation, which will be in this manner:

Treasure and moneys do then add true greatness and strength to a state, when they are accompanied with these three conditions:

First,



First, The same condition which hath been annexed to largeness of territory, that is, that they be joined with martial prowels and valour.

Secondly, That treasure doth then advance greatness, when it is rather in mediocrity than in great abundance. And again better, when some part of the state is poor, than when all parts of it are rich.

And lastly, That treasure in a state is more or less serviceable, as the hands are in which the wealth chiefly resteth.

For the first of these, it is a thing that cannot be denied, that in equality of valour, the better purse is an advantage. For like as in wrestling, between man and man, if there be a great overmatch in strength, it is to little purpose though one have the better breath; but, if the strength be near equal, then he that is shorter winded will (if the wager consist of many falls) in the end have the worst: so it is in the wars, if it be a match between a valiant people and a cowardly, the advantage of treasure will not serve; but if they be near in valour, then the better monied state, will be the better able to continue the war, and so in the end to prevail. But if any man think that money can make those provisions at the first encounters, that no difference of valour can countervail, let him look back but into those examples which have been brought, and he must confess, that all those furnitures whatsoever are but shews and mummeries, and cannot throwd fear against resolution. For there shall he find companies armed with armour of proof taken out of the stately armories of kings who spared no cost, overthrowen by men armed by private bargain and chance as they could get it: there shall he find armies appointed with horses bred of purpose, and in choice races, chariots of war, elephants, and the like terrours, mastered by armies meanly appointed. So of towns strongly fortified, basely yielded, and the like; all being but sheep in a lion's skin, where valour faileth.

For the second point, that competency of treasure is better than surfeit, is a matter of common place or ordinary discourse; in regard that excess of riches, neither in publick nor private, ever hath any good effects, but maketh men either slothful and effeminate, and so no enterprisers; or insolent and arrogant, and so over-great embracers; but most generally cowardly and fearful to lose, according to the adage, *Timidus Plutus*; so as this needeth no further speech. But a part of that assertion requireth a more deep consideration, being a matter not so familiar, but yet most assuredly true. For it is necessary in a state that shall grow and enlarge, that there be that composition which the poet speaks of, *Militis utile bellum*: an ill condition of a state (no question) if it be meant of a civil war, as it was spoken; but a condition proper to a state that shall encrease, if it be taken of a foreign war. For except there be a spur in the state, that shall excite and prick them on to wars, they will but keep their own, and seek no further. And in all experience and stories you shall find but three things that prepare and dispose an estate to war: the ambition of governors, a state of soldiers professed, and the hard means to live of many subjects. Whereof the last is the most forcible and the most constant. And this is the true reason of that event which we observed and rehearsed before, that most of the great kingdoms of the world have sprung out of hardness and scarceness of means, as the strongest herbs out of the barrenest soils.

For the third point, concerning the placing and distributing of treasure in a state, the position is simple; that then treasure is greatest strength to a state, when it is so disposed, as it is readiest and easiest to come by for publick service and use: which one position doth infer three conclusions.

First, that there be quantity sufficient of treasure as well in the treasury of the crown or state, as in the purse of the private subject.

Secondly, that the wealth of the subject be rather in many hands than in few.

And thirdly, that it be in those hands, where there is likeliest to be greatest sparing, and encrease, and not in those hands, wherein there useth to be greatest expence and consumption.

For it is not the abundance of treasure in the subjects hands that can make sudden supply of the want of a state; because reason tells us, and experience both, that private persons have least will to contribute, when they have most



cause, for when there is noise or expectation of wars, then is always the dearest times for monies, in regard every man restraineth and holdeth fast his means for his own comfort and succour, according as Solomon saith, *The riches of a man are as a strong hold in his own imagination*; and therefore we see by infinite examples, and none more memorable than that of Constantinus the last emperor of the Greeks, and the citizens of Constantinople, that subjects do often chuse rather to be frugal dispensers for their enemies, than liberal lenders to their prince. Again, wheresoever the wealth of the subject is engrossed into few hands, it is not possible it should be so respondent and yielding to payments and contributions for the publick, both because the true estimation or assessment of great wealth is more obscure and uncertain; and because the burden seemeth lighter when the charge lieth upon many hands; and further, because the same greatness of wealth is for the most part not collected and obtained without sucking it from many, according to the received similitude of the spleen, which never swelleth but when the rest of the body pineth and abateth. And lastly, it cannot be that any wealth should leave a second overplus for the publick that doth not first leave an overplus to the private stock of him that gathers it; and therefore nothing is more certain, than that those states are least able to aid and defray great charge for wars, or other publick disbursements, whose wealth resteth chiefly in the hands of the nobility and gentlemen. For what by reason of their magnificence and waste in expence, and what by reason of their desire to advance and make great their own families, and again upon the coincidence of the former reason, because they are always the fewest; small is the help, as to payments or charge, that can be levied or expected from them towards the occasions of a state. Contrary it is of such states whose wealth resteth in the hands of merchants, burghers, tradesmen, freeholders, farmers in the country, and the like, whereof we have a most evident and present example before our eyes, in our neighbours of the Low Countries, who could never have endured and continued so inestimable and insupportable charge, either by their natural frugality, or by their mechanical industry, were it not also that there was a concurrence in them of this last reason, which is, that their wealth was dispersed in many hands, and not ingrossed into few; and those hands were not much of the nobility, but most and generally of inferior conditions.

To make application of this part concerning treasure to your majesty's kingdoms: First, I suppose I cannot err, that as to the endowment of your crown, there is not any crown of Europe, that hath so great a proportion of demesne and land revenue. Again, he that shall look into your prerogative shall find it to have as many streams to feed your treasury, as the prerogative of any of the said kings, and yet without oppression or taxing of your people. For they be things unknown in many other states, that all rich mines should be yours, though in the soil of your subjects; that all wardships should be yours, where a tenure in chief is, of lands held of your subjects; that all confiscations and escheats of treason should be yours, though the tenure be of the subject; that all actions popular, and the fines and casualties thereupon may be informed in your name, and should be due unto you, and a moiety at the least where the subject himself informs. And further, he that shall look into your revenues at the ports of the sea, your revenues in courts of justice, and for the stirring of your seals, the revenues upon your clergy, and the rest, will conclude, that the law of England studied how to make a rich crown, and yet without levies upon your subject. For merchandizing, it is true, it was ever by the kings of this realm despised, as a thing ignoble and indigne for a king, though it is manifest, the situation and commodities of this island considered, it is infinite, what your majesty might raise, if you would do as a king of Portugal doth, or a duke of Florence, in matter of merchandize. As for the wealth of the subject\*:

To proceed to the articles affirmative, the first was, That the true greatness of an estate consisteth in the natural and fit situation of the region or place.

Wherein I mean nothing superstitiously touching the fortunes or fatal destiny of any places, nor philosophically touching their configuration with the superior

\* *Marg. Here was a blank side left, to continue the sense.*



globe. But I understand proprieties and respects merely civil and according to the nature of human actions, and the true considerations of estate. Out of which duly weighed, there doth arise a triple distribution of the fitness of a region for a great monarchy. First, that it be of hard access. Secondly, that it be seated in no extreme angle, but commodiously in the midst of many regions. And thirdly, that it be maritime, or at the least upon great navigable rivers; and be not inland or mediterrane. And that these are not conceits, but notes of event, it appeareth manifestly, that all great monarchies and states have been seated in such manner, as, if you would place them again, observing these three points which I have mentioned, you cannot place them better; which shews the preheminnence of nature, unto which human industry or accident cannot be equal, specially in any continuance of time. Nay, if a man look into these things more attentively, he shall see divers of these seats of monarchies, how fortune hath hovered still about the places, coming and going only in regard of the fixed reason of the conveniency of the place, which is immutable. And therefore, first we see the excellent situation of Egypt; which seemeth to have been the most antient monarchy, how conveniently it stands upon a neck of land commanding both seas on either side, and embracing, as it were with two arms, Asia and Africk, besides the benefit of the famous river of Nilus. And therefore we see what hath been the fortune of that country, there having been two mighty returns of fortune, though at great distance of time; the one in the times of Sesostris, and the other in the empire of the Mamalukes, besides the middle greatness of the kingdom of the Ptolemy's, and of the greatness of the caliphs and sultans in the latter times. And this region, we see likewise, is of strait and defensible access, being commonly called of the Romans, *Claustria Aegypti* \*. Consider in like manner the situation of Babylon, being planted most strongly in regard of lakes and overflowing grounds between the two great navigable rivers the *Euphrates* and *Tygris*, and in the very heart of the world; having regard to the four *cardines* of east and west and northern and southern regions. And therefore we see, that although the sovereignty alter, yet the seat still of the monarchy remains in that place. For after the monarchies of the kings of Assyria, which were natural kings of that place, yet when the foreign kings of Persia came in, the seat remained. For although the mansion of the persons of the kings of Persia were sometimes at Susa, and sometimes at Ecbatana, which were termed their winter and their summer parlours, because of the mildness of the air in the one, and the freshness in the other; yet the city of estate continued to be Babylon. Therefore we see, that Alexander the Great, according to the advice of Calanus the Indian, that shewed him a bladder, which, if it were born down at one end, would rise at the other, and therefore wished him to keep himself in the middle of his empire, chose accordingly Babylon for his seat, and died there. And afterwards likewise in the family of Seleucus and his descendants, kings of the east, although divers of them, for their own glory, were founders of cities of their own names, as Antiochia, Seleucia, and divers others (which they sought by all means to raise and adorn) yet the greatness still remained according unto nature with the ancient seat. Nay, further on, the same remained during the greatness of the kings of Parthia, as appeareth by the verse of Lucian, who wrote in Nero's time:

*Cumque superba flaret Babylon spolianda trophaeis.*

And after that, again it obtained the seat of the highest caliph or successors of Mahomet. And at this day, that which they call Bagdat, which joins to the ruin of the other, containeth one of the greatest satrapies of the Levant. So again Persia, being a country imbarred with mountains, open to the seas, and in the middle of the world, we see hath had three memorable revolutions of great monarchies. The first in the time of Cyrus; the second in the time of the new Artaxerxes, who raised himself in the reign of Alexander Severus emperor of Rome; and now of late memory, in Ismael the sophy, whose descendants continue in empire and competition with the Turks to this day.

So again Constantinople, being one of the most excellent seats of the world, in the confines of Europe and Asia.



# A D V I C E

TO

Sir GEORGE VILLIERS,

AFTERWARDS

DUKE OF BUCKINGHAM,

When he became

FAVOURITE to King JAMES.

Recommending many important Instructions how to govern himself  
in the Station of Prime Minister.

Written by Sir FRANCIS BACON, on the importunity of  
his Patron and Friend.

NOBLE SIR,

**W**HAT you requested of me by word, when I last waited on you, you have since renewed by your letters. Your requests are commands unto me; and yet the matter is of that nature, that I find myself very unable to serve you therein as you desire. It hath pleased the king to cast an extraordinary eye of favour upon you, and you express yourself very desirous to win upon the judgment of your master, and not upon his affections only. I do very much commend your noble ambition herein; for favour so bottomed is like to be lasting; whereas, if it be built but upon the sandy foundation of personal respects only, it cannot be long lived.

What is found in  
the original  
edition pub-  
lished in  
4to, 1661.  
My lord, when the blessing of God (to whom in the first place I know you subscribe your preferment) and the king's favour, purchased by your noble parts, promising as much as can be expected from a gentleman, had brought you to this high pitch of honour, to be in the eye, and ear, and even in the bosom of your gracious master; and you had found by experience the trouble of all mens concurrence, and for all matters, to yourself, as a mediator between them and their sovereign, you were pleased to lay this command upon me: first in general, to give you my poor advice for your carriage in so eminent a place, and of so much danger if not wisely discharged: next in particular by what means to give dispatches to suitors of all sorts, for the king's best service, the suitors satisfaction, and your own ease. I humbly return you mine opinion in both these, such as an hermit rather than a courtier can render.]

Yet in this you have erred, in applying yourself to me, the most unworthy of your servants, to give assistance upon so weighty a subject.

You know, I am no courtier, nor versed in state-affairs; my life, hitherto, hath rather been contemplative, than active; I have rather studied books than men; I can but guess, at the most, at these things, in which you desire to be advised: nevertheless, to shew my obedience, though with the hazard of my discretion, I shall yield unto you.

Sir, In the first place, I shall be bold to put you in mind of the present condition you are in; you are not only a courtier, but a bed-chamber man, and so



are in the eye and ear of your master ; but you are also a favourite ; the favourite of the time, and so are in his bosom also ; the world hath so voted you, and doth so esteem of you : for kings and great princes, even the wisest of them, have had their friends, their favourites, their privadoes, in all ages ; for they have their affections as well as other men. Of these they make several uses ; sometimes to communicate and debate their thoughts with them, and to ripen their judgments thereby ; sometimes to ease their cares by imparting them ; and sometimes to interpose them between themselves and the envy or malice of their people (for kings cannot err, that must be discharged upon the shoulders of their ministers ; and they who are nearest unto them must be content to bear the greatest load.) [Remember then what your true condition is : the king himself is above the reach of his people, but cannot be above their censures ; and you are his shadow, if either he commit an error, and is loth to avow it, but excuses it upon his ministers, of which you are first in the eye ; or you commit the fault or have willingly permitted it, and must suffer for it : and so perhaps you may be offered a sacrifice to appease the multitude.] But truly, Sir, I do not believe or suspect that you are chosen to this eminency, out of the last of these considerations : for you serve such a master, who by his wisdom and goodness is as free from the malice or envy of his subjects, as I think, I may truly say, ever any king was, who hath sat upon his throne before him : but I am confident, his majesty hath cast his eyes upon you, as finding you to be such as you should be, or hoping to make you to be such as he would have you to be ; for this I may say without flattery, your outside promiseth as much as can be expected from a gentleman : but be it in the one respect, or other, it belongeth to you to take care of yourself, and to know well what the name of a favourite signifies. If you be chosen upon the former respects, you have reason to take care of your actions and deportment, out of your gratitude, for the king's sake ; but if out of the latter, you ought to take the greater care for your own sake.

You are as a new-risen star, and the eyes of all men are upon you ; let not your own negligence make you fall like a meteor.

[Remember well the great trust you have undertaken ; you are as a continual centinel, always to stand upon your watch to give him true intelligence. If you flatter him you betray him ; if you conceal the truth of those things from him which concern his justice or his honour (although not the safety of his person) you are as dangerous a traitor to his state, as he that riseth in arms against him. A false friend is more dangerous than an open enemy : kings are styled gods upon earth, not absolute, but *Dixi, Dii essis* ; and the next words are, *sed morumini scut homines* ; they shall die like men, and then all their thoughts perish. They cannot possibly see all things with their own eyes, nor hear all things with their own ears ; they must commit many great trusts to their ministers. Kings must be answerable to God almighty, to whom they are but vassals, for their actions, and for their negligent omissions : but the ministers to kings, whose eyes, ears, and hands they are, must be answerable to God and man for the breach of their duties, in violation of their trusts, whereby they betray them. Opinion is a master wheel in these cases : that courtier who obtained a boon of the emperor, that he might every morning at his coming into his presence humbly whisper him in the ear and say nothing, asked no unprofitable suit for himself : but such a fancy raised only by opinion cannot be long lived, unless the man have solid worth to uphold it ; otherwise when once discovered it vanisheth suddenly. But when a favourite in court shall be raised upon the foundation of merits, and together with the care of doing good service to the king, shall give good dispatches to the suitors, then can he not chuse but prosper.]

The contemplation then of your present condition must necessarily prepare you for action : what time can be well spared from your attendance on your master, will be taken up by suitors, whom you cannot avoid nor decline, without reproach. For if you do not already, you will soon find the throng of suitors attend you ; for no man, almost, who hath to do with the king, will think himself safe, unless you be his good angel, and guide him ; or at least that you be not a *malus genius* against him : so that, in respect of the king your master, you must



be very wary, that you give him true information; and if the matter concern him in his government, that you do not flatter him; if you do, you are as great a traitor to him in the court of heaven, as he that draws his sword against him: and in respect of the suitors which shall attend you, there is nothing will bring you more honour and more ease, than to do them what right in justice you may, and with as much speed as you may: for believe it, Sir, next to the obtaining of the suit, a speedy and a gentle denial (when the case will not bear it) is the most acceptable to suitors: they will gain by their dispatch; whereas else they shall spend their time and money in attending; and you will gain, in the case you will find in being rid of their importunity. But if they obtain what they reasonably desired, they will be doubly bound to you for your favour; *Bis dat, qui cito dat*, it multiplies the courtesy, to do it with good words and speedily.

That you may be able to do this with the best advantage, my humble advice is this; when suitors come unto you, set apart a certain hour in a day to give them audience; if the business be light and easy, it may by word only be delivered, and in a word be answered; but if it be either of weight or of difficulty, direct the suitor to commit it to writing (if it be not so already) and then direct him to attend for his answer at a set time to be appointed, which would constantly be observed, unless some matter of great moment do interrupt it. When you have received the petitions (and it will please the petitioners well, to have access unto you to deliver them into your own hand) let your secretary first read them, and draw lines under the material parts thereof (for the matter, for the most part, lies in a narrow room.) The petitions being thus prepared, do you constantly set apart an hour in a day to peruse those petitions; and after you have ranked them into several files, according to the subject matter, make choice of two or three friends, whose judgments and fidelities you believe you may trust in a business of that nature; and recommend it to one or more of them, to inform you of their opinions, and of their reasons for or against the granting of it. And if the matter be of great weight indeed, then it would not be amiss to send several copies of the same petition to several of your friends, the one not knowing what the other doth, and desire them to return their answers to you by a certain time, to be prefixed, in writing; so shall you receive an impartial answer, and by comparing the one with the other (as out of *responsa prudentium*) you shall both discern the abilities and faithfulness of your friends, and be able to give a judgment thereupon as an oracle. But by no means trust to your own judgment alone; for no man is omniscient: nor trust only to your servants, who may mislead you or misinform you; by which they may perhaps gain a few crowns, but the reproach will lie upon yourself, if it be not rightly carried.

For the facilitating of your dispatches, my advice is farther, that you divide all the petitions, and the matters therein contained, under several heads, in which, if I conceive, may be fitly ranked into these eight sorts.

I. Matters that concern religion, and the church and churchmen thereof.  
II. Matters concerning justice, and the laws, and the professors thereof.  
III. Councillors, and the council table, and the great offices and officers of the kingdom.

IV. Foreign negotiations and embassies.

V. Peace and war, both foreign and civil, and in that the navy and forts, and what belongs to them.

VI. Trade at home and abroad.

VII. Colonies, or foreign plantations.

VIII. The court and curialty.

And whatsoever will not fall naturally under one of these heads, believe me, Sir, will not be worthy of your thoughts, in this capacity, we now speak of. And of these sorts, I warrant you, you will find enough to keep you in business.

I begin with the first, which concerns religion.

In the first place, be you yourself rightly persuaded and settled in the true protestant religion, professed by the church of England; which doubtless is as sound and orthodox in the doctrine thereof, as any christian church in the world.

[For



For religion, if any thing be offered to you touching it, or touching the church, or church-men, or church-government, rely not only upon yourself, but take the opinion of some grave and eminent divines, especially such as are sad and discreet men, and exemplary for their lives.]

2. In this you need not be a monitor to your gracious master the king: the chiefest of his imperial titles is, to be The defender of the faith, and his learning is eminent, not only above other princes, but above other men; be but his scholar, and you are safe in that.

But if any question be moved concerning the doctrine of the church of England expressed in the thirty nine articles, give not the least ear to the movers thereof: that is so soundly and so orthodoxly settled, as cannot be questioned without extreme danger to the honour and stability of our religion; which hath been sealed with the blood of so many martyrs and confessors, as are famous through the christian world. The enemies and underminers thereof are the Romish catholick (so styling themselves) on the one hand, whose tenets are inconsistent with the truth of religion professed and protested by the church of England (whence we are called protestants) and the anabaptists, and separatists, and sectaries on the other hand, whose tenets are full of schism, and inconsistent with monarchy: for the regulating of either, there needs no other coercion than the due execution of the laws already established by parliament.]

3. For the discipline of the church of England by bishops, &c. I will not positively say, as some do, that it is *jure divino*; but this I say and think *ex animo*, that it is the nearest to apostolical truth; and confidently I shall say, it is fittest for monarchy of all others. I will use no other authority to you, than that excellent proclamation set out by the king himself in the first year of his reign, and annexed before the book of common-prayer, which I desire you to read; and if at any time there shall be the least motion made for innovation, to put the king in mind to read it himself: it is most dangerous in a state, to give ear to the least alterations in government.

4. If any attempt be made to alter the discipline of our church, although it be not an essential part of our religion, yet it is so necessary not to be rashly altered, as the very substance of religion will be interested in it: therefore I desire you before any attempt be made of an innovation by your means, or by any intercession to your master, that you will first read over, and his majesty call to mind that wise and weighty proclamation, which himself penned, and caused to be published in the first year of his reign, and is prefixed in print before the book of common prayer (of that impression) in which you will find so prudent, so weighty reasons, not to hearken to innovations, as will fully satisfy you, that it is dangerous to give the least ear to such innovators; but it is desperate to be misled by them; and to settle your judgment, mark but the admonition of the wisest of men, king Solomon, Prov. xxiv. 21. *My son, fear God and the king, and meddle not with those who are given to change.*]

4. Take heed, I beseech you, that you be not an instrument to countenance the Romish catholicks. I cannot flatter, the world believes that some near in blood to you are too much of that persuasion; you must use them with respect, according to the bonds of nature; but you are of kin, and so a friend to their persons, not to their errors.

5. The archbishops and bishops, next under the king, have the government of the church and ecclesiastical affairs: be not you the mean to prefer any to those places, for any by-respects; but only for their learning, gravity, and worth; their lives and doctrine ought to be exemplary.

6. For deans, and canons or prebends of cathedral churches: in their first institution they were of great use in the church; they were not only to be of counsel with the bishop for his revenue, but chiefly for his government in causes ecclesiastical: use your best means to prefer such to those places who are fit for that purpose, men eminent for their learning, piety, and discretion, and put the king often in mind thereof; and let them be reduced again to their first institution.

7. You will be often solicited, and perhaps importuned to prefer scholars to church livings: you may further your friends in that way, *caeteris paribus*; otherwise



otherwise remember, I pray, that these are not places merely of favour; the charge of souls lies upon them; the greatest account whereof will be required at their own hands; but they will share deeply in their faults who are the instruments of their preferment.

8. Besides the Romish catholicks, there is a generation of sectaries, the anabaptists, brownists, and others of their kinds; they have been several times very busy in this kingdom, under the colour of zeal for reformation of religion: the king your master knows their disposition very well; a small touch will put him in mind of them; he had experience of them in Scotland, I hope he will beware of them in England; a little countenance or connivency sets them on fire.

9. Order and decent ceremonies in the church are not only comely, but commendable; but there must be great care not to introduce innovations, they will quickly prove scandalous; men are naturally over-prone to suspicion; the true protestant religion is seated in the golden mean; the enemies unto her are the extremes in either hand.

10. The persons of church-men are to be had in due respect for their work's sake, and protected from scorn; but if a clergyman be loose and scandalous, he must not be patronized nor winked at; the example of a few such corrupt many.

11. Great care must be taken, that the patrimony of the church be not sacrilegiously diverted to lay uses: his majesty in his time hath religiously stopped a leak that did much harm, and would else have done more. Be sure, as much as in you lies, stop the like upon all occasions.

12. Colleges and schools of learning are to be cherished and encouraged, there to breed up a new stock to furnish the church and commonwealth when the old store are transplanted. This kingdom hath in later ages been famous for good literature; and if preferment shall attend the deservers, there will not want supplies.

II. NEXT to religion, let your care be to promote justice. By justice and mercy is the king's throne established.

1. Let the rule of justice be the laws of the land, an impartial arbiter between the king and his people, and between one subject and another: I shall not speak superlatively of them, lest I be suspected of partiality, in regard of my own profession; but this I may truly say, They are second to none in the christian world.

[They are the best, the equallest in the world between prince and people; by which the king hath the justest prerogative, and the people the best liberty: and if at any time there be an unjust deviation, *Hominis est vitium, non professionis.*]

2. And, as far as it may lie in you, let no arbitrary power be intruded: the people of this kingdom love the laws thereof, and nothing will oblige them more, than a confidence of the free enjoying of them; what the nobles upon an occasion once said in parliament, *Nolumus leges Angliæ mutare*, is imprinted in the hearts of all the people.

3. But because the life of the laws lies in the due execution and administration of them, let your eye be, in the first place, upon the choice of good judges: these properties had they need to be furnished with; to be learned in their profession, patient in hearing, prudent in governing, powerful in their eloquence to persuade and satisfy both the parties and hearers; just in their judgment; and, to sum up all, they must have these three attributes; they must be men of courage, fearing God, and hating covetousness; an ignorant man cannot, a coward dares not be a good judge.

4. By no means be you persuaded to interpose yourself, either by word or letter, in any cause depending, or like to be depending in any court of justice, nor suffer any other great man to do it where you can hinder it, and by all means dissuade the king himself from it, upon the importunity of any for themselves or their friends: if it should prevail, it perverts justice: but if the judge be so just, and of such courage (as he ought to be) as not to be inclined thereby, yet it always leaves a taint of suspicion behind it; judges must be as chaste as Cæsar's wife, neither to be, nor to be suspected to be unjust; and, Sir, the honour of the judges in their judicature, is the king's honour, whose person they represent.

5. There



5. There is great use of the service of the judges in their circuits, which are twice in the year held throughout the kingdom: the trial of causes between party and party, or delivering of the gaols in the several counties, are of great use for the expedition of justice; yet they are of much more use for the government of the counties through which they pass, if that were well thought upon.

6. For if they had instructions to that purpose, they might be the best intelligencers to the king of the true state of his whole kingdom, of the disposition of the people, of their inclinations, of their intentions and motions, which are necessary to be truly understood.

7. To this end I could wish, that against every circuit all the judges should, sometimes by the king himself, and sometimes by the lord Chancellor or lord Keeper, in the king's name, receive a charge of those things which the present times did much require; and at their return should deliver a faithful account thereof, and how they found and left the counties through which they passed, and in which they kept their assizes.

8. And that they might the better perform this work, which might be of great importance, it will not be amiss that sometimes this charge be publick, as it useth to be in the Star-chamber, at the end of the terms next before the circuit begins, where the king's care of justice, and the good of his people, may be published; and that sometimes also it may be private, to communicate to the judges some things not so fit to be publickly delivered.

9. I could wish also, that the judges were directed to make a little longer stay in a place than usually they do; a day more in a county would be a very good addition; although their wages for their circuits were increased in proportion: it would stand better with the gravity of their employment; whereas now they are sometimes enforced to rise over-early, and to sit over-late, for the dispatch of their business, to the extraordinary trouble of themselves and of the people, their times indeed not being *bonae juridicae*; and, which is the main, they would have the more leisure to inform themselves (*quasi aliud agentes*) of the true estate of the country.

10. The attendance of the sheriffs of the counties, accompanied with the principal gentlemen, in a comely, not a costly equipage, upon the judges of assize at their coming to the place of their sitting, and at their going out, is not only a civility, but of use also: it raiseth a reverence to the persons and places of the judges, who coming from the king himself on so great an errand, should not be neglected.

11. If any sue to be made a judge, for my own part, I should suspect him: but if either directly or indirectly he should bargain for a place of judicature, let him be rejected with shame; *Vendere jure potest, emereat ille prius.*

12. When the place of a chief judge of a court becomes vacant, a pious judge of that court, or of another court, who hath approved himself fit and deserving, should be sometimes preferred; it would be a good encouragement for him, and for others by his example.

13. Next to the judge, there would be care used in the choice of such as are called to the degree of serjeants at law (for such they must be first before they be made judges) none should be made serjeants but such as probably might be held fit to be judges afterwards, when the experience at the bar hath fitted them for the bench: therefore by all means cry down that unworthy course of late times used, that they should pay monies for it; it may satisfy some courtiers, but it is no honour to the person so preferred, nor to the king, who thus prefers them.

14. For the king's counsel at the law, especially his attorney and solicitor general, I need say nothing: their continual use for the king's service, not only for his revenue, but for all the parts of his government, will put the king, and those who love his service, in mind to make choice of men every way fit and able for that employment; they had need to be learned in their profession, and not ignorant in other things; and to be dexterous in those affairs whereof the dispatch is committed to them.

15. The king's attorney of the court of wards is in the true quality of the judges;



judges; therefore what hath been observed already of judges, which are intended principally of the three great courts of law at Westminster, may be applied to the choice of the attorney of this court.

16. The like for the attorney of the duchy of Lancaster, who partakes of both qualities, partly of a judge in that court, and partly of an attorney general for so much as concerns the proper revenue of the duchy.

17. I must not forget the judges of the four circuits in the twelve shires of Wales, who although they are not of the first magnitude, nor need be of the degree of the coif (only the chief justice of Chester, who is one of their number, is so) yet are they considerable in the choice of them, by the same rules as the other judges are; and they sometimes are, and fitly may be, transplanted into the higher courts.

18. There are many courts (as you see) some superior, some provincial, and some of a lower orb: it were to be wished, and is fit to be so ordered, that every of them keep themselves within their proper spheres. The harmony of justice is then the sweetest, when there is no jarring about the jurisdiction of the courts; which methinks wisdom cannot much differ upon, their true bounds being for the most part so clearly known.

19. Having said thus much of the judges, somewhat will be fit to put you in mind concerning the principal ministers of justice: and in the first, of the high sheriffs of the counties, which have been very ancient in this kingdom; I am sure before the conquest: the choice of them I commend to your care, and that at fit times you put the king in mind thereof; that as near as may be they be such as are fit for those places: for they are of great trust and power; the *posse comitatus*, the power of the whole county being legally committed unto him.

20. Therefore it is agreeable with the intention of the law, that the choice of them should be by the commendation of the great officers of the kingdom, and by the advice of the judges, who are presumed to be well read in the condition of the gentry of the whole kingdom: and although the king may do it of himself, yet the old way is the good way.

21. But I utterly condemn the practice of the later times, which hath lately crept into the court (at the back-stairs) that some who are pricked for sheriffs, and were fit, should get out of the bill; and others who were neither thought upon, nor worthy to be, should be nominated; and both for money.

22. I must not omit to put you in mind of the lords lieutenants, and deputy lieutenants of the counties: their proper use is for ordering the military affairs, in order to an invasion from abroad, or a rebellion or sedition at home; good choice should be made of them, and prudent instructions given to them, and as little of the arbitrary power, as may be, left unto them; and that the muster-masters, and other officers under them, inroach not upon the subject; that will detract much from the king's service.

23. The justices of peace are of great use. Anciently there were conservators of the peace; these are the same, saving that several acts of parliament have altered their denomination, and enlarged their jurisdiction in many particulars: the fitter they are for the peace of the kingdom, the more heed ought to be taken in the choice of them.

24. But negatively, this I shall be bold to say, that none should be put into either of those commissions, with an eye of favour to their persons, to give them countenance or reputation in the places where they live, but for the king's service sake; nor any put out for the disavour of any great man: it hath been too often used, and hath been no good service to the king.

25. A word more, if you please to give me leave, for the true rules of moderation of justice on the king's part. The execution of justice is committed to his judges, which seemeth to be the severer part; but the milder part, which is mercy, is wholly left in the king's immediate hand: and justice and mercy are the true supporters of his royal throne.

26. If the king shall be wholly intent upon justice, it may appear with an over-rigid aspect; but if he shall be over-remiss and easy, it draweth upon him contempt.



contempt. Examples of justice must be made sometimes for terror to some; examples of mercy sometimes, for comfort to others; the one procures fear, and the other love. A king must be both feared and loved, else he is lost.

27. The ordinary courts of justice I have spoken of, and of their judges and judicature: I shall put you in mind of some things touching the high court of parliament in England, which is superlative; and therefore it will behove me to speak the more warily thereof.

28. For the institution of it, it is very ancient in this kingdom: it consisteth of the two houses, of peers and commons, as the members; and of the king's majesty, as the head of that great body: by the king's authority alone, and by his writs, they are assembled, and by him alone are they prorogued and dissolved, but each house may adjourn itself.

29. They being thus assembled, are more properly a council to the king, the great council of the kingdom, to advise his majesty in those things of weight and difficulty, which concern both the king and people, than a court.

30. No new laws can be made, nor old laws abrogated or altered, but by common consent in parliament, where bills are prepared and presented to the two houses, and then delivered, but nothing is concluded but by the king's royal assent; they are but embryos, it is he giveth life unto them.

31. Yet the house of peers hath a power of judicature in some cases: properly to examine, and then to affirm; or, if there be cause, to reverse the judgments, which have been given in the court of king's bench (which is the court of highest jurisdiction in the kingdom for ordinary judicature) but in these cases it must be done by writ of error *in parlamento*: and thus the rule of their proceedings is not *absoluta potestas*, as in making new laws (in that conjuncture as before) but *limitata potestas*, according to the known laws of the land.

32. But the house of commons have only power to censure the members of their own house, in point of election, or misdemeanors in or towards that house; and have not, nor ever had power so much, as to administer an oath to prepare a judgment.

33. The true use of parliaments in this kingdom is very excellent; and they would be often called, as the affairs of the kingdom shall require; and continued as long as is necessary and no longer: for then they be but burthens to the people, by reason of the privileges justly due to the members of the two houses and their attendants; which their just rights and privileges are religiously to be observed and maintained: but if they should be unjustly enlarged beyond their true bounds, they might lessen the just power of the crown, it borders so near upon popularity.

34. All this while I have spoken concerning the common laws of England, generally and properly so called, because it is most general and common to almost all cases and causes, both civil and criminal: but there is also another law, which is called the civil or ecclesiastical law, which is confined to some few heads, and that is not to be neglected: and although I am a professor of the common law, yet am I so much a lover of truth and of learning, and of my native country, that I do heartily persuade that the professors of that law, called civilians (because the civil law is their guide) should not be discountenanced nor discouraged: else whensoever we shall have ought to do with any foreign king or state, we shall be at a miserable loss, for want of learned men in that profession.

III. I come now to the consideration of those things which concern counsellors of state, the council table, and the great offices and officers of the kingdom; which are those who for the most part furnish out that honourable board.

Of counsellors, there are two sorts: the first, *consilarii nati* (as I may term them) such are the prince of Wales, and others of the king's sons (when he hath more) of these I speak not, for they are naturally born to be counsellors to the king, to learn the art of governing betimes.

2. But the ordinary sort of counsellors are such as the king, out of a due consideration of their worth and abilities, and withal, of their fidelities to his person and to his crown, calleth to be of council with him, in his ordinary government:



## ADVICE TO SIR GEORGE VILLIERS.

ment. And the council table is so called from the place where they ordinarily assemble and sit together; and their oath is the only ceremony used, to make them such, which is solemnly given unto them, at their first admission: these honourable persons are from thenceforth of that beard and body: they cannot come until they be thus called, and the king at his pleasure may spare their attendance; and he may dispense with their presence there, which at their own pleasure they may not do.

3. This being the quality of their service, you may easily judge what care the king should use, in his choice of them. It behoveth that they be persons of great trust and fidelity, and also of wisdom and judgment, who shall thus assist in bearing up the king's throne, and of known experience in publick affairs.

4. Yet it may not be unfit to call some of young years, to train them up in that trade, and so fit them for those weighty affairs, against the time of greater maturity; and some also for the honour of their persons: but these two sorts not to be tied to so strict attendance, as the others, from whom the present dispatch of business is expected.

5. I could wish that their number might not be so over-great; the persons of the counsellors would be the more venerable: and I know that queen Elizabeth, in whose time I had the happiness to be born, and to live many years, was not so much observed for having a numerous, as a wise, council.

6. The duty of a privy counsellor to a king, I conceive, is, not only to attend the council-board, at the times appointed, and there to consult of what shall be propounded; but also to study those things which may advance the king's honour and safety, and the good of the kingdom, and to communicate the same to the king, or to his fellow-counsellors, as there shall be occasion. And this, Sir, will concern you more than others, by how much you have a larger share in his affections.

7. And one thing I shall be bold to desire you to recommend to his majesty: that when any new thing shall be propounded to be taken into consideration, that no counsellor should suddenly deliver any positive opinion thereof: it is not so easy with all men to retract their opinions, although there shall be cause for it: but only to hear it, and at the most but to break it, at first, that it may be the better understood against the next meeting.

8. When any matter of weight hath been debated, and seemeth to be ready for a resolution; I wish it may not be at that sitting concluded (unless the necessity of the time press it) lest upon second cogitations there should be cause to alter; which is not for the gravity and honour of that board.

9. I wish also that the king would be pleased sometimes to be present at that board; it adds a majesty to it: and yet not to be too frequently there; that would render it less esteemed when it is become common: besides, it may sometimes make the counsellors not be so free in their debates in his presence, as they would be in his absence.

10. Besides the giving of counsel, the counsellors are bound by their duties *ex vi termini*, as well as by their oaths, to keep counsel; therefore are they called *de privato consilio regis*, and a *secretioribus consiliis regis*.

11. One thing I add, in the negative, which is not fit for that board, the entertaining of private causes, of *meum et tuum*; those should be left to the ordinary course and courts of justice.

12. As there is great care to be used, for the counsellors themselves to be chosen; so there is of the clerks of the council also, for the secreting of their consultations: and methinks, it were fit that his majesty be speedily moved to give a strict charge, and to bind it with a solemn order (if it be not already so done) that no copies of the orders of that table be delivered out by the clerks of the council, but by the order of the board; nor any, not being a counsellor, or a clerk of the council, or his clerk, to have access to the council books: and to that purpose, that the servants attending the clerks of the council be bound to secrecy, as well as their masters.

13. For the great offices and officers of the kingdom, I shall say little; for the most part of them are such as cannot well be severed from the counsellorship;



ship; and therefore the same rule is to be observed for both, in the choice of them. In the general, only, I advise this, let them be set in those places for which they are probably the most fit.

14. But in the quality of the persons, I conceive it will be most convenient to have some of every sort (as in the time of queen Elizabeth it was :) one bishop at the least, in respect of questions touching religion, or church government; one or more skilled in the laws; some for martial affairs; and some for foreign affairs; by this mixture one will help another in all things that shall there happen to be moved. But if that should fail, it will be a safe way, to consult with some other able persons well versed in that point which is the subject of their consultation; which yet may be done so warily, as may not discover the main end therein.

IV. In the next place, I shall put you in mind of foreign negotiations, and embassies to, or with foreign princes or states; wherein I shall be little able to serve you.

1. Only, I will tell you what was the course in the happy days of queen Elizabeth, whom it will be no dis-reputation to follow: she did vary, according to the nature of the employment, the quality of the persons she employed; which is a good rule to go by.

2. If it were an embassy of gratulation or ceremony (which must not be neglected) choice was made of some noble person, eminent in place, and able in purse; and he would take it as a mark of favour, and discharge it without any great burthen to the queen's coffers, for his own honour's sake.

3. But if it were an embassy of weight, concerning affairs of state, choice was made of some sad person of known judgment, wisdom, and experience; and not of a young man, not weighed in state matters; nor of a mere formal man, whatsoever his title or outside were.

4. Yet in company of such, some young towardly noblemen or gentlemen were usually sent also, as assistants or attendants, according to the quality of the persons; who might be thereby prepared and fitted for the like employment, by this means, at another turn.

5. In their company were always sent some grave and sad men, skilful in the civil laws, and some in the languages, and some who had been formerly conversant in the courts of those princes, and knew their ways; these were assistants in private, but not trusted to manage the affairs in publick; that would detract from the honour of the principal ambassador.

6. If the negotiation were about merchants affairs, then were the persons employed for the most part doctors of the civil law, assisted with some other discreet men; and in such, the charge was ordinarily defrayed by the company or society of merchants, whom the negotiation concerned.

7. If lieger ambassadors or agents were sent to remain in or near the courts of those princes or states (as it was ever held fit, to observe the motions, and to hold correspondence with them, upon all occasions) such were made choice of as were presumed to be vigilant, industrious, and discreet men, and had the language of the place whither they were sent; and with these were sent such as were hopeful to be worthy of the like employment at another time.

8. Their care was, to give true and timely intelligence of all occurrences, either to the queen herself, or the secretaries of state, unto whom they had their immediate relation.

9. Their charge was always borne by the queen, duly paid out of the exchequer, in such proportion, as, according to their qualities and places, might give them an honourable subsistence there: but for the reward of their service, they were to expect it upon their return, by some such preferment as might be worthy of them, and yet be little burthen to the queen's coffers or revenues.

10. At their going forth they had their general instructions in writing, which might be communicated to the ministers of that state, whither they were sent; and they had also private instructions, upon particular occasions; and at their return, they did always render an account of some things to the queen herself, of



## ADVICE TO SIR GEORGE VILLIERS.

some things to the body of the council, and of some others to the secretaries of state; who made use of them, or communicated them, as there was cause.

11. In those days there was a constant court held, that by the advice of the secretaries, or some principal counsellors, there were always sent forth into several parts beyond the seas, some young men, of whom good hopes were conceived of their towardliness, to be trained up, and made fit for such public employments, and to learn the languages. This was at the charge of the queen, which was not much; for they travelled but as private gentlemen: and as by their industry their deserts did appear, so were they farther employed or rewarded. This course I shall recommend unto you, to breed up a nursery of such public plants.

V. For peace and war, and those things which appertain to either; I in my own disposition and profession am wholly for peace, if please God to bless this kingdom therewith, as for many years past he hath done: and,

1. I presume I shall not need to persuade you to the advancing of it; nor shall you need to persuade the king your master therein, for that he hath hitherto been another Solomon, in this our Israel, and the motto which he hath chosen (*Beati pacifici*) shews his own judgment: but he must use the means to preserve it, else such a jewel may be lost.

2. God is the God of peace (it is one of his attributes) therefore by him alone we must pray, and hope to continue it: there is the foundation.

3. And the king must not neglect the just ways for it; justice is the best protector of it at home, and providence for war is the best prevention of it from abroad.

4. Wars are either foreign or civil; for the foreign war by the king upon some neighbour nation, I hope we are secure; the king in his pious and just disposition is not inclinable therunto; his empire is long enough, bounded with the ocean, as if the very situation thereof had taught the king and people to set up their rests, and say, *Ne plus ultra*.

5. And for a war of invasion from abroad; only we must not be over-secure: that is the way to invite it.

6. But if we be always prepared to receive an enemy, if the ambition or malice of any should incite him, we may be very confident we shall long live in peace and quietness, without any attempts upon us.

7. To make the preparations hereunto the more assured: in the first place, I will recommend unto you the care of our out-work, the navy royal and shipping of our kingdom, which are the walls thereof: and every great ship is as an impregnable fort; and our many safe and commodious ports and havens, in every of these kingdoms, are as the redoubts to secure them.

8. For the body of the ships, no nation of the world doth equal England, for the oaken timber wherewith to build them; and we need not borrow of any other, iron for spikes, or nails to fasten them together; but there must be a great deal of providence used, that our ship timber be not unnecessarily wasted.

9. But for tackling, as sails and cordage, we are beholden to our neighbours for them, and do buy them for our money; that must be foreseen and laid up in store against a time of need, and not sought for when we are to use them: but we are much to blame that we make them not at home; only pitch and tar we have not of our own.

10. For the true art of building of ships, for burthen and service both, no nation in the world exceeds us: ship-wrights and all other artificers belonging to that trade must be cherished and encouraged.

11. Powder and ammunition of all sorts we can have at home, and in exchange for other home commodities we may be plentifully supplied from our neighbours, which must not be neglected.

12. With mariners and seamen this kingdom is plentifully furnished: the constant trade of merchandizing will furnish us at a need; and navigable rivers will repair the shore, both to the navy royal and to the merchants, if they be set on work, and well paid for their labour.



13. Sea captains and commanders and other officers must be encouraged, and rise by degrees, as their fidelity and industry deserve it.

[Let brave spirits that have fitted themselves for command, either by sea or land, not be laid by, as persons unnecessary for the time; let arms and ammunition of all sorts be provided and stored up, as against a day of battle; let the ports and forts be fitted so, as if by the next wind we should hear of an alarm: such a known providence is the surest protection. But of all wars, let both prince and people pray against a war in our own bowels: the king by his wisdom, justice, and moderation, must foresee and stop such a storm, and if it fall must allay it; and the people by their obedience must decline it. And for a foreign war intended by an invasion to enlarge the bounds of our empire, which are large enough, and are naturally bounded with the ocean, I have no opinion either of the justness or fitness of it; and it were a very hard matter to attempt it with hope of success, seeing the subjects of this kingdom believe it is not legal for them to be enforced to go beyond the seas, without their own consent, upon hope of an unwarranted conquest; but to resist an invading enemy, or to suppress rebels, the subject may and must be commanded out of the countries where they inhabit. The whole kingdom is but one intire body, else it will necessarily be verified, which elsewhere was asserted, *Dum singuli pugnant, omnes vincuntur.*]

14. Our strict league of amity and alliance with our near neighbours the Hollanders is a mutual strength to both; the shipping of both, in conjuncture, being so powerful, by God's blessing, as no foreigners will venture upon; this league and friendship must inviolably be observed.

15. From Scotland we have had in former times some alarms, and inroads into the northern parts of this kingdom; but that happy union of both kingdoms under one sovereign, our gracious king, I hope, hath taken away all occasions of breach between the two nations. Let not the cause arise from England, and I hope the Scots will not adventure it; or if they do, I hope they will find, that although to our king they were his first-born subjects, yet to England belongs the birthright: but this should not be any cause to offer any injury to them, nor to suffer any from them.

16. There remains then no danger, by the blessing of God, but a civil war, from which God of his mercy defend us, as that which is most desperate of all others. The king's wisdom and justice must prevent it, if it may be; or if it should happen, *quod absit*, he must quench that wild-fire with all the diligence that possibly can be.

17. Competition to the crown, there is none, nor can be, therefore it must be a fire within the bowels, or nothing; the cures whereof are these, *remedium praeveniens*, which is the best physick, either to a natural body, or to a state, by just and equal government to take away the occasion; and *remedium puniens*, if the other prevail not: the service and vigilancy of the deputy lieutenants in every county, and of the high sheriff, will contribute much herein to our security.

18. But if that should not prevail, by a wife and timous inquisition, the peccant humours and humors must be discovered, and purged, or cut off; mercy, in such a case, in a king is true cruelty.

19. Yet if the heads of the tribes can be taken off, and the mislead multitude will see their error, and return to their obedience, such an extent of mercy is both honourable and profitable.

20. A king, against a storm, must foresee, to have a convenient stock of treasure; and neither be without money, which is the sinews of war, nor to depend upon the cures of others, which may fail at a pinch.

21. He must also have a magazine of all sorts, which must be had from foreign parts, or provided at home, and to commit them to several places, under the custody of trusty and faithful ministers and officers, if it be possible.

22. He must make choice of expert and able commanders to conduct and manage the war, either against a foreign invasion, or a home rebellion; which must not be young and giddy, which dare, not only to fight, but to swear, and drink, and curse, neither fit to govern others, nor able to govern themselves.



## ADVICE TO SIR GEORGE VILLIERS.

23. Let not such be discouraged, if they deserve well, by misinformation, or for the satisfying the humours or ambition of others, perhaps, out of envy, perhaps out of treachery, or other sinister ends. A steady hand in governing of military affairs is more requisite, than in times of peace, because an error committed in war, may, perhaps, prove irremediable.

24. If God shall bless these endeavours, and the king return to his own house in peace, when a civil war shall be at an end, those who have been found faithful in the hand must be regarded, yea, and rewarded also; the traitorous, or treacherous, who have misled others, severely punished; and the neutrals and false-hearted friends and followers, who have started aside like a broken bow, be noted *carbone nigro*. And so I shall leave them, and this part of the work.

VI. I come to the sixth part, which is trade; and that is either at home or abroad. And I begin with that which is at home, which enableth the subjects of the kingdom to live, and layeth a foundation to a foreign trade by traffick with others, which enableth them to live plentifully and happily.

1. For the home trade, I first commend unto your consideration the encouragement of tillage, which will enable the kingdom for corn for the natives, and to spare for exportation: and I myself have known, more than once, when, in times of dearth, in queen Elizabeth's days, it drained much coin of the kingdom, to furnish us with corn from foreign parts.

2. Good husbandry will find the means, by good husbandry, to improve their lands, by lime, chalk, marl, or sea-sand, where it can be had: but it will not be amiss, that they be put in mind thereof, and encouraged in their industries.

3. Planting of orchards, in a soil and air fit for them, is very profitable, as well as pleasurable; cyder and perry are notable beverage in sea voyages.

4. Gardens are also very profitable, if planted with artichokes, roots, and such other things as are fit for food; whence they be called kitchen gardens, and that very properly.

5. The planting of hop-yards, sowing of woad and rape-seed, are found very profitable for the planters, in places apt for them, and consequently profitable for the kingdom, which for divers years was furnished with them from beyond the seas.

6. The planting and preserving of woods, especially of timber, is not only profitable, but commendable, therewith to furnish posterity, both for building and shipping.

7. The kingdom would be much improved, by draining of drowned lands, and gaining that in from the overflowing of salt waters and the sea, and from fresh waters also.

8. And many of those grounds would be exceeding fit for dairies, which, being well housewived, are exceeding commodious.

9. Much good land might be gained from forests and chaces, more remote from the king's access, and from other commonable places, so as always there be a due care taken, that the poor commoners have no injury by such improvement.

10. The making of navigable rivers would be very profitable; they would be as so many in-draughts of wealth, by conveying of commodities with ease from place to place.

11. The planting of hemp and flax would be an unknown advantage to the kingdom, many places therein being as apt for it, as any foreign parts.

12. But add hereunto, that if it be converted into linen-cloth or cordage, the commodity thereof will be multiplied.

13. So it is of the wools and leather of the kingdom, if they be converted into manufactures.

14. Our English damies are much given to the wearing of costly laces; and, if they be brought from Italy, or France, or Flanders, they are in great esteem; whereas, if the like laces were made by the English, so much thread as would make a yard of lace, being put into that manufacture, would be five times, or perhaps, ten or twenty times the value.

15. The



15. The breeding of cattle is of much profit, especially the breed of horses, in many places, not only for travel, but for the great saddle; the English horse, for strength, and courage, and swiftness together, not being inferior to the horses of any other kingdom.

16. The minerals of the kingdom, of lead, iron, copper, and tin, especially, are of great value, and set many able-bodied subjects on work; it were great pity they should not be industriously followed.

17. But of all minerals, there is none like to that of fishing, upon the coasts of these kingdoms, and the seas belonging to them: our neighbours, within half a day's sail of us, with a good wind, can shew us the use and value thereof; and, doubtless, there is sea-room enough for both nations, without offending one another; and it would exceedingly support the navy.

18. This realm is much enriched, of late years, by the trade of merchandize which the English drive in foreign parts; and, if it be wisely managed, it must of necessity very much increase the wealth thereof: care being taken, that the exportation exceed in value the importation; for then the balance of trade must of necessity be returned in coin or bullion.

19. This would easily be effected, if the merchants were persuaded or compelled to make their returns in solid commodities, and not too much thereof in vanity, tending to excels.

20. But especially care must be taken, that monopolies, which are the cankers of all trading, be not admitted, under specious colours of publick good.

21. To put all these into a regulation, if a constant commission, to men of honesty and understanding, were granted, and well pursued, to give order for the managing of these things, both at home and abroad, to the best advantage; and that this commission were subordinate to the council-board; it is conceived, it would produce notable effects.

VII. The next thing is that of colonies and foreign plantations, which are very necessary, as outlets, to a populous nation, and may be profitable also if they be managed in a discreet way.

1. First, in the choice of the place, which requireth many circumstances; as, the situation, near the sea, for the commodiousness of an intercourse with England; the temper of the air and climate, as may best agree with the bodies of the English, rather inclining to cold than heat; that it be stored with woods, mines, and fruits, which are naturally in the place; that the soil be such as will probably be fruitful for corn, and other conveniences, and for breeding of cattle; that it hath rivers, both for passage between place and place, and for fishing also, if it may be; that the natives be not so many, but that there may be elbow-room enough for them, and for the adventures also: all which are likely to be found in the West-Indies.

2. It would be also such as is not already planted by the subjects of any christian prince or state, nor over-nearly neighbouring to their plantation. And it would be more convenient, to be chosen by some of those gentlemen or merchants which move first in the work, than to be designed unto them from the king; for it must proceed from the option of the people, else it sounds like an exile; so the colonies must be raised by the leave of the king, and not by his command.

3. After the place is made choice of, the first step must be, to make choice of a fit governor; who, although he have not the name, yet he must have the power of a viceroy; and if the person who principally moved in the work be not fit for that trust, yet he must not be excluded from command; but then his defect in the governing part must be supplied by such assistants as shall be joined with him, or as he shall very well approve of.

4. As at their setting out they must have their commission, or letters patents from the king, that so they may acknowledge their dependency upon the crown of England, and under his protection; so they must receive some general instructions, how to dispose of themselves, when they come there, which must be in nature of laws unto them.



5. But the general law, by which they must be guided and governed, must be the common law of England; and to that end, it will be fit, that some man, reasonably studied in the law, and otherwise qualified for such a purpose, be persuaded (if not thereto inclined of himself, which were the best) to go thither as chancellor amongst them, at first; and when the plantation were more settled, then to have courts of justice there, as in England.

6. At the first planting, or as soon after as they can, they must make themselves defensible both against the natives, and against strangers; and to that purpose, they must have the assistance of some able military man, and convenient arms and ammunition for their defence.

7. For the discipline of the church in those parts, it will be necessary, that it agree with that which is settled in England, else it will make a schism and a rent in Christ's coat, which must be seamless; and, to that purpose, it will be fit, that by the king's supreme power in causes ecclesiastical, within all his dominions, they be subordinate under some bishop and bishoprick of this realm.

8. For the better defence against a common enemy, I think it would be best, that foreign plantations should be placed in one continent, and near together; whereas, if they be too remote, the one from the other, they will be disunited, and so the weaker.

9. They must provide themselves of houses, such as, for the present, they can; and, at more leisure, such as may be better; and they first must plant for corn and cattle, &c. for food and necessary sustenance; and after, they may enlarge themselves for those things which may be for profit and pleasure, and to traffick withal also.

10. Woods for shipping, in the first place, may doubtless be there had, and minerals there found, perhaps, of the richest; howsoever, the mines out of the fruits of the earth, and seas and waters adjoining, may be found in abundance.

11. In a short time they may build vessels and ships also, for traffick with the parts near adjoining, and with England also, from whence they may be furnished with such things as they may want, and, in exchange or barter, send from thence other things, with which quickly, either by nature or art, they may abound.

12. But these things would, by all means, be prevented; that no known bankrupt, for shelter; nor known murderer or other wicked person, to avoid the law; nor known heretick or schismatick, be suffered to go into those countries; or, if they do creep in there, not to be harboured or continued; else, the place would receive them naught, and return them into England, upon all occasions, worse.

13. That no merchant, under colour of driving a trade thither, or from thence, be suffered to work upon their necessities.

14. And that to regulate all these inconveniencies, which will insensibly grow upon them, that the king be pleased to erect a subordinate council in England, whose care and charge shall be, to advise, and put in execution, all things which shall be found fit for the good of those new plantations; who, upon all occasions, shall give an account of their proceedings to the king, or to the council-board, and from them receive such directions as may best agree with the government of that place.

15. That the king's reasonable profit be not neglected, partly, upon reservation of moderate rents and services; and, partly upon customs; and partly, upon importation and exportation of merchandize; which for a convenient time after the plantation begin, would be very easy, to encourage the work; but, after it is well settled, may be raised to a considerable proportion, worthy the acceptance.

Yet these cautions are to be observed in these undertakings.

1. That no man be compelled to such an employment; for that were a banishment, and not a service fit for a free man.

2. That if any transplant themselves into plantations abroad, who are known schismaticks, outlaws, or criminal persons, that they be sent for back upon the first notice; such persons are not fit to lay the foundation of a new colony.

3. To make no extirpation of the natives under pretence of planting religion: God surely will no way be pleased with such sacrifices.



## ADVICE TO SIR GEORGE VILLIERS.

727

4. That the people sent thither be governed according to the laws of this realm, whereof they are, and still must be subjects.

5. To establish there the same purity of religion, and the same discipline for church-government, without any mixture of popery or anabaptism, lest they should be drawn into factions and schisms, and that place receive them there bad, and send them back worse.

6. To employ them in profitable trades and manufactures, such as the climate will best fit, and such as may be useful to this kingdom, and return to them an exchange of things necessary.

7. That they be furnished and instructed for the military part, as they may defend themselves; lest, on a sudden, they be exposed as a prey to some other nation, when they have fitted the colony for them.

8. To order a trade thither, and thence, in such a manner as some few merchants and tradesmen, under colour of furnishing the colony with necessities, may not grind them, so as shall always keep them in poverty.

9. To place over them such governors as may be qualified in such manner as may govern the place, and lay the foundation of a new kingdom.

10. That care be taken, that when the industry of one man hath settled the work, a new man, by insinuation or misinformation, may not supplant him without a just cause, which is the discouragement of all faithful endeavours.

11. That the king will appoint commissioners in the nature of a council, who may superintend the works of this nature, and regulate what concerns the colonies, and give an account thereof to the king, or to his council of state.

Again, For matter of trade, I confess, it is out of my profession; yet in that I shall make a conjecture also, and propound some things to you, whereby (if I am not much mistaken) you may advance the good of your country and profit of your master.

1. Let the foundation of a profitable trade be thus laid, that the exportation of home commodities be more in value than the importation of foreign; so we shall be sure that the stocks of the kingdom shall yearly increase, for then the balance of trade must be returned in money or bullion.

2. In the importation of foreign commodities, let not the merchant return toys and vanities (as sometimes it was elsewhere apes and peacocks) but solid merchandise, first for necessity, next for pleasure, but not for luxury.

3. Let the vanity of the times be restrained, which the neighbourhood of other nations have induced; and we strive apace to exceed our pattern: let vanity in apparel, and, which is more vain, that of the fashion, be avoided. I have heard, that in Spain (a grave nation, whom in this I wish we might imitate) they do allow the players and courtesans the vanity of rich and costly clothes; but to sober men and matrons they permit it not, upon pain of infamy; a severer punishment upon ingenious natures than a pecuniary mulct.

4. The excess of diet in costly meats and drinks fetched from beyond the seas would be avoided: wise men will do it without a law, I would there might be a law to restrain fools. The excess of wine costs the kingdom much, and returns nothing but surfeits and diseases; were we as wise as easily we might be, within a year or two at the most, if we would needs be drunk with wines, we might be drunk with half the cost.

5. If we must be vain and superfluous in laces and embroideries, which are more costly than either warm or comely, let the curiosity be the manufacture of the natives; then it should not be verified of us, *materiali superabat opus*.

6. But instead of crying up all things, which are either brought from beyond sea, or wrought here by the hands of strangers, let us advance the native commodities of our own kingdom, and employ our countrymen before strangers; let us turn the wools of the land into cloaths and stuffs of our own growth, and the hemp and flax growing here into linen cloth and cordage; it would set many thousand hands on work, and thereby one shilling worth of the materials would by industry be multiplied to five, ten, and many times to twenty times more in the value being wrought.



7. And of all sorts of thrift for the publick good, I would above all others commend to your care the encouragement to be given to husbandry, and the improving of lands for tillage; there is no such usury as this. The king cannot enlarge the bounds of these islands, which make up his empire, the ocean being the unremovable wall which encloseth them; but he may enlarge and multiply the revenue thereof by this honest and harmless way of good husbandry.

8. A very great help unto trade are navigable rivers; they are so many indraughts to attain wealth: wherefore by art and industry let them be made; but let them not be turned to private profit.

9. In the last place, I beseech you, take into your serious consideration that Indian wealth, which this island and the seas thereof excel in, the hidden and rich treasure of fishing. Do we want an example to follow? I may truly say to the English, *Go to the pismire, thou sluggard*. I need not expound the text; half a day's sail with a good wind, will shew the mineral and the mines.

10. To regulate all these it will be worthy the care of a subordinate council, to whom the ordering of these things may be committed, and they give an account thereof to the state.]

VIII. I come to the last of those things which I propounded, which is, the court and curialty.

The other did properly concern the king, in his royal capacity, as *pater patriæ*; this more properly, as *pater-familias*: and herein,

1. I shall, in a word, and but in a word only, put you in mind, that the king in his own person, both in respect of his household or court, and in respect of his whole kingdom (for a little kingdom is but as a great household, and a great household as a little kingdom) must be exemplary, *Regis ad exemplum, &c.* But for this, God be praised, our charge is easy; for our gracious master, for his learning and piety, justice and bounty, may be, and is, not only a precedent to his own subjects, but to foreign princes also; yet he is still but a man, and seasonable *memento's* may be useful; and, being discreetly used, cannot but take well with him.

2. But your greatest care must be, that the great men of his court (for you must give me leave to be plain with you, for so is your injunction laid upon me) yourself in the first place, who are first in the eye of all men, give no just cause of scandal; either by light, or vain, or by oppressive carriage.

3. The great officers of the king's household had need be both discreet and provident persons, both for his honour and for his thrift; they must look both ways, else they are but half-sighted: yet in the choice of them, there is more latitude left to affection, than in the choice of counsellors, and of the great officers of state, before touched, which must always be made choice of merely out of judgment; for in them the publick hath a great interest.

[And yet in these, the choice had need be of honest and faithful servants, as well as of comely outsidés, who can bow the knee, and kiss the hand, and perform other services, of small importance compared with this of publick employment. King David, Pl. ci. 6, 7. propounded a rule to himself for the choice of his courtiers. He was a wife and a good king; and a wife and a good king shall do well to follow such a good example; and if he find any to be faulty, which perhaps cannot suddenly be discovered, let him take on him this resolution as king David did, *There shall no deceitful person dwell in my house*. But for such as shall bear office in the king's house, and manage the expences thereof, it is much more requisite to make a good choice of such servants, both for his thrift and for his honour.]

4. For the other ministerial officers in court (as, for distinction sake, they may be termed) there must also be an eye unto them and upon them. They have usually risen in the household by degrees, and it is a noble way, to encourage faithful service: but the king must not bind himself to a necessity herein, for then it will be held *ex debito*: neither must he alter it, without an apparent cause for it: but to displace any who are in, upon displeasure, which for the most part happeneth



eth upon the information of some great man, is, by all means, to be avoided, unless there be a manifest cause for it.

5. In these things you may sometimes interpose, to do just and good offices; but for the general, I should rather advise: meddle little, but leave the ordering of those household affairs to the white-staffs, which are those honourable persons, to whom it properly belongeth to be answerable to the king for it; and to those other officers of the green-cloth, who are subordinate to them, as a kind of council, and a court of justice also.

6. Yet for the green-cloth law (take it in the largest sense) I have no opinion of it, farther than it is regulated by the just rules of the common laws of England.

7. Towards the support of his majesty's own table, and of the prince's, and of his necessary officers, his majesty hath a good help by purveyance, which justly is due unto him; and, if justly used, is no great burthen to the subject; but by the purveyors, and other under-officers, is many times abused. In many parts of the kingdom, I think, it is already reduced to a certainty in money; and if it be indifferently and discreetly managed, it would be no hard matter to settle it so throughout the whole kingdom; yet to be renewed from time to time: for that will be the best and safest, both for the king and people.

8. The king must be put in mind, to preserve the revenues of his crown, both certain and casual, without diminution, and to lay up treasure in store against a time of extremity; empty coffers give an ill sound, and make the people many times forget their duty, thinking that the king must be beholden to them for his supplies.

9. I shall by no means think it fit, that he reward any of his servants with the benefit of forfeitures, either by fines in the court of Star-chamber, or high commission courts, or other courts of justice, or that they should be farmed out, or bestowed upon any, so much as by promise, before judgment given; it would neither be profitable nor honourable.

10. Besides matters of serious consideration, in the courts of princes, there must be times for pastimes and disports: when there is a queen and ladies of honour attending her, there must sometimes be masques, and revels, and interludes; and when there is no queen, or princess, as now; yet at festivals, and for entertainment of strangers, or upon such occasions, they may be fit also: yet care would be taken, that, in such cases, they be set off more with wit and activity, than with costly and wasteful expences.

11. But for the king and prince, and the lords and chivalry of the court, I rather commend, in their turns and seasons, the riding of the great horse, the tilts, the barriers, tennis, and hunting, which are more for the health and strength of those who exercise them, than in an effeminate way to please themselves and others.

And now the prince groweth up fast to be a man, and is of a sweet and excellent disposition; it would be an irreparable stain and dishonour upon you, having that access unto him, if you should mislead him, or suffer him to be misled by any loose or flattering parasites: the whole kingdom hath a deep interest in his virtuous education; and if you, keeping that distance which is fit, do humbly interpose yourself, in such a case, he will one day give you thanks for it.

12. Yet dice and cards may sometimes be used for recreation, when field-sports cannot be had; but not to use it as a mean to spend the time, much less to mispend the thrift of the gamblers.

SIR, I shall trouble you no longer; I have run over these things as I first propounded them; please you to make use of them, or any of them, as you shall see occasion; or to lay them by, as you shall think best, and to add to them, as you daily may, out of your experience.

I must be bold, again, to put you in mind of your present condition; you are in the quality of a centinel; if you sleep, or neglect your charge, you are an undone man, and you may fall much faster than you have risen.



I have but one thing more to mind you of, which nearly concerns yourself; you serve a great and gracious master, and there is a most hopeful young prince, whom you must not desert; it behoves you to carry yourself wisely and evenly between them both: adore *not* so the rising son, that you forget the father, who raised you to this height; nor be you so obsequious to the father, that you give just cause to the son to suspect that you neglect him: but carry yourself with that judgment, as, if it be possible, may please and content them both; which, truly, I believe, will be no hard matter for you to do: so may you live long beloved of both.

[If you find in these or any other your observations (which doubtless are much better than these loose collections) any thing which you would have either the father or the son to take to heart, an admonition from a dead author, or a caveat from an impartial pen, whose aim neither was nor can be taken to be at any particular by design, will prevail more and take better impression than a downright advice; which perhaps may be mistaken as if it were spoken magisterially.]

Thus may you live long an happy instrument for your king and country: you shall not be a meteor or a blazing star, but *Hæc fixa*: happy here and more happy hereafter. *Deus manu sua te ducat*:] which is the hearty prayer of

Your most obliged and devoted Servant.





# AN ADVERTISEMENT

## HOLYWAR.

To the Right Reverend Father in God,

LANCELOT ANDREWS, Lord Bishop of Winchester,  
and Counsellor of Estate to his MAJESTY.

MY LORD,

**A**MONGST consolations, it is not the least to represent to a man's self like examples of calamity in others. For examples give a quicker impression than arguments; and besides, they certify us, that which the Scripture also tendreth for satisfaction; *that no new thing is happened unto us*. This they do the better, by how much the examples are liker in circumstances to our own case; and more especially if they fall upon persons that are greater and worthier than ourselves. For as it savoureth of vanity, to match ourselves highly in our own conceits; so, on the other side it is a good sound conclusion, that if our betters have sustained the like events, we have the less cause to be grieved.

In this kind of consolation I have not been wanting to myself: though as a christian, I have tasted (through God's great goodness) of higher remedies. Having therefore, through the variety of my reading, set before me many examples both of ancient and later times, my thoughts (I confess) have chiefly stayed upon three particulars, as the most eminent and the most resembling. All three persons that had held chief place of authority in their countries; all three ruined, not by war, or by any other disaster, but by justice and sentence, as delinquents and criminals; all three famous writers, inasmuch as the remembrance of their calamity is now as to posterity but as a little picture of night-work, remaining amongst the fair and excellent tables of their acts and works: and all three (if that were any thing to the matter) fit examples to quench any man's ambition of rising again; for that they were every one of them restored with great glory, but to their farther ruin and destruction, ending in a violent death. The men were, Demosthenes, Cicero, and Seneca; persons that I durst not claim affinity with, except the similitude of our fortunes had contracted it. When I had cast mine eyes upon these examples, I was carried on farther to observe, how they did bear their fortunes, and principally, how they did employ their times being banished, and disabled for publick business: to the end, that I might learn by them; and that they might be as well my counsellors as my comforters. Whereupon I happened to note, how diversly their fortunes wrought upon them; especially in that point at which I did most aim, which was the employing of their times and pens. In Cicero, I saw that during his banishment (which was almost two years) he was so softened and dejected, as he wrote nothing but a few womanish epistles. And yet, in mine opinion, he had least reason of the three to be discouraged: for that although it was judged, and judged by the highest kind of judgment, in form of a statute or law, that he should be banished, and his whole estate confiscated and seized, and his houses pulled down, and that it should be highly penal for any man to propound a repeal; yet his case even then had no great blot of ignominy; for it was thought but a tempest of popularity which overthrew him. Demosthenes contrariwise, though his case was foul, being condemned for bribery, and not simple bribery, but bribery in the nature of treason and disloyalty; yet nevertheless took so little knowledge of his fortune, as during his banishment he did much busy himself, and intermeddle with matters of state; and took upon him to counsel the state (as if he had been still at the helm) by letters; as appears by some epistles of his which are extant. Seneca indeed, who was condemned for many corruptions and crimes, and banished into a solitary island, kept a mean; and though his pen did not freeze, yet he abstained from intruding into matters of business; but spent his time in writing



writing books of excellent argument and use for all ages ; though he might have made better choice (sometimes) of his dedications.

These examples confirmed me much in a resolution (whereunto I was otherwise inclined) to spend my time wholly in writing ; and to put forth that poor talent, or half talent, or what it is, that God hath given me, not as heretofore to particular exchanges, but to banks, or mounts of perpetuity, which will not break. Therefore having not long since set forth a part of my *Insauration* ; which is the work, that in mine own judgment (*si nunquam fallit imago*) I do most esteem ; I think to proceed in some new parts thereof. And although I have received from many parts beyond the seas, testimonies touching that work, such as beyond which I could not expect at the first in so abstruse an argument ; yet nevertheless I have just cause to doubt, that it flies too high over mens heads : I have a purpose therefore (though I break the order of time) to draw it down to the sence, by some patterns of a *Natural story* and *Inquisition*. And again, for that my book of *Advancement of learning* may be some preparative, or key, for the better opening of the *Insauration* ; because it exhibits a mixture of new conceits and old ; whereas the *Insauration* gives the new unmixed, otherwise than with some little asperison of the old for taste's sake ; I have thought good to procure a translation of that book into the general language, not without great and ample additions, and enrichment thereof, especially in the second book, which handleth the partition of sciences ; in such sort, as I hold it may serve in lieu of the first part of the *Insauration*, and acquit my promise in that part. Again, because I cannot altogether desert the civil person that I have born ; which if I should forget, enough would remember ; I have also entered into a work touching *Laws*, propounding a character of justice in a middle term, between the speculative and reverend discourses of philosophers, and the writings of lawyers, which are tied and obnoxious to their particular laws. And although it be true, that I had a purpose to make a particular digest, or recompilment of the laws of mine own nation ; yet because it is a work of assistance, and that which I cannot master by my own forces and pen, I have laid it aside. Now having in the work of my *Insauration* had in contemplation the general good of men in their very being, and the dowries of nature ; and in my work of laws, the general good of men likewise in society, and the dowries of government ; I thought in duty I owed somewhat unto my own country, which I ever loved ; inasmuch as although my place hath been far above my desert, yet my thoughts and cares concerning the good thereof were beyond, and over, and above my place : so now being (as I am) no more able to do my country service, it remained unto me to do it honour : which I have endeavoured to do in my work of *The reign of king Henry the seventh*. As for my *Essays*, and some other particulars of that nature, I count them but as the recreations of my other studies, and in that sort purpose to continue them ; though I am not ignorant that those kind of writings would, with less pains and embracement (perhaps) yield more lustre and reputation to my name, than those other which I have in hand. But I account the use that a man should seek of the publishing of his own writings before his death, to be but an untimely anticipation of that which is proper to follow a man, and not to go along with him.

But revolving with myself my writings, as well those which I have published, as those which I had in hand, methought they went all into the city, and none into the temple ; where, because I have found so great consolation, I desire likewise to make some poor oblation. Therefore I have chosen an argument, mixt of religious and civil considerations ; and likewise mixt between contemplative and active. For who can tell whether there may not be an *exortere aliquis* ? Great matters (especially if they be religious) have (many times) small beginnings ; and the platform may draw on the building. This work, because I was ever an enemy to flattering dedications, I have dedicated to your lordship, in respect of our ancient and private acquaintance ; and because amongst the men of our times I hold you in special reverence.

Your Lordship's loving friend,

FR. ST. ALBAN.



# An Advertisement touching an HOLY WAR.

Written in the Year MDCXXII.

## The PERSONS that speak.

EUSEBIUS, GAMALIEL, ZEBEDEUS, MARTIUS, EUPOLIS, POLLIO.

HERE met at Paris (in the house of Eupolis) \* Eusebius, Zebedæus, Gamaliel, Martius, all persons of eminent quality, but of several dispositions. Eupolis himself was also present; and while they were set in conference, Pollio came in to them from court; and as soon as he saw them, after his witty and pleasant manner, he said.

*Pollio.* Here be four of you, I think, were able to make a good world; for you are as differing as the four elements, and yet you are friends. As for Eupolis, because he is temperate, and without passion, he may be the fifth essence.

*Eupolis.* If we five (Pollio) make the great world, you alone make the little; because you profess, and practise both, to refer all things to yourself.

*Pollio.* And what do they that practise it, and profess it not? *Eupolis.* They are the less hardy, and the more dangerous. But come and sit down with us, for we were speaking of the affairs of Christendom at this day; wherein we would be glad also to have your opinion.

*Pollio.* My lords, I have journeyed this morning, and it is now the heat of the day; therefore your lordships discourses had need content my ears very well, to make them entreat mine eyes to keep open. But yet if you will give me leave to awake you, when I think your discourses do but sleep, I will keep watch the best I can.

*Eupolis.* You cannot do us a greater favour. Only I fear you will think all our discourses to be but the better sort of dreams; for good wishes, without power to effect, are not much more. But, Sir, when you came in, Martius had both raised our attentions, and affected us with some speech he had begun; and it falleth out well, to shake off your drowsiness; for it seemed to be the trumpet of a war. And therefore (Martius) if it please you, to begin again; for the speech was such, as deserveceth to be heard twice; and I assure you, your auditory is not a little amended by the presence of Pollio.

*Martius.* When you came in (Pollio) I was saying freely to these lords, that I had observed, how by the space now of half a century of years, there had been (if I may speak it) a kind of meanness in the designs and enterprises of Christendom. Wars with subjects, like an angry suit for a man's own, that might be better ended by accord. Some petty acquiescence of a town, or a spot of territory; like a farmer's purchase of a close or nook of ground, that lay fit for him. And although the wars had been for a Naples, or a Milan, or a Portugal, or a Bohemia, yet these wars were but as the wars of heathens (of Athens, or Sparta, or Rome) for secular interest, or ambition, not worthy the warfare of Christians. The church (indeed) maketh her missions into the extreme parts of the nations and isles, and it is well: but this is *Ecce unus gladius hic*. The christian princes and potentates are they that are wanting to the propagation of the faith by their arms. Yet our Lord, that said on earth, to the disciples, *Ite et predicate*, said from heaven to Constantine, *In hoc signo vince*. What christian soldier is there, that will not be touched with a religious emulation, to see an order of Jesus, or of St. Francis, or of St. Au-

\* Characters of the persons. Eusebius beareth the character of a moderate divine: Gamaliel of a protestant zealot: Zebedæus of a Roman catholick zealot: Martius of a military man: Eupolis of a politician: Pollio of a courtier.



## OF AN HOLY WAR.

gustine, do such service, for enlarging the christian borders; and an order of St. Jago, or St. Michael, or St. George, only to robe, and feast, and perform rites and observances? Surely the merchants themselves shall rise in judgment against the princes and nobles of Europe; for they have made a great path in the seas, unto the ends of the world; and set forth ships, and forces, of Spanish, English, and Dutch, enough to make China tremble; and all this, for pearl, or stone, or spices: but for the pearl of the kingdom of heaven, or the stones of the heavenly Jerusalem, or the spices of the spouse's garden, not a mast hath been set up; nay, they can make shift to shed christian blood so far off amongst themselves, and not a drop for the cause of Christ. But let me recall myself; I must acknowledge, that within the space of fifty years (whereof I spake) there have been three noble and memorable actions upon the infidels, wherein the christian hath been the invader: for where it is upon the defensive, I reckon it a war of nature, and not of piety. The first was, that famous and fortunate war by sea, that ended in the victory of Lepanto; which hath put a hook into the nostrils of the Ottomans to this day; which was the work (chiefly) of that excellent pope Pius Quintus, whom I wonder his successors have not declared a saint. The second was, the noble, though unfortunate, expedition of Sebastian king of Portugal upon Africa, which was achieved by him alone; so alone, as left somewhat for others to excuse. The last was, the brave incursions of Sigismund the Transylvanian prince, the thread of whose prosperity was cut off by the christians themselves, contrary to the worthy and paternal monitories of pope Clement the eighth. More than these, I do not remember. *Pollio.* No! What say you to the extirpation of the Moors of Valencia? At which sudden question, Martius was a little at a stop; and Gamaliel prevented him, and said: *Gamaliel.* I think Martius did well in omitting that action, for I, for my part, never approved it; and it seems, God was not well pleased with that deed; for you see the king, in whose time it passed (whom you catholicks count a saint-like and immaculate prince) was taken away in the flower of his age: and the author, and great counsellor of that rigour (whose fortunes seemed to be built upon the rock) is ruined: and it is thought by some, that the reckonings of that business are not yet cleared with Spain; for that numbers of those supposed Moors, being tried now by their exile, continue constant in the faith, and true christians in all points, save in the thirst of revenge. *Zebed.* Make not hasty judgment (Gamaliel) of that great action, which was as Christ's fan in those countries, except you could shew some such covenant from the crown of Spain, as Joshua made with the Gibeonites; that that cursed seed should continue in the land. And you see it was done by edict, not tumultuously; the sword was not put into the people's hand. *Eupel.* I think Martius did omit it, not as making any judgment of it either way, but because it sorted not aptly with action of war, being upon subjects, and without resistance. But let us, if you think good, give Martius leave to proceed in his discourse; for methought he spake like a divine in armour. *Martius.* It is true, Eupolis, that the principal object which I have before mine eyes, in that whereof I speak, is piety and religion. But, nevertheless, if I should speak only as a natural man, I should persuade the same thing. For there is no such enterprise, at this day, for secular greatness, and terrene honour, as a war upon infidels. Neither do I in this propound a novelty, or innovation, but that which is proved by late examples of the same kind, though perhaps of less difficulty. The Castilians, the age before that wherein we live, opened the new world; and subdued and planted Mexico, Peru, Chili, and other parts of the West-Indies. We see what floods of treasure have flowed into Europe by that action; so that the cense or rates of Christendom are raised since ten times, yea twenty times told. Of this treasure, it is true, the gold was accumulated, and store treasure, for the most part; but the silver is still growing. Besides, infinite is the access of territory and empire, by the same enterprise. For there was never an hand drawn, that did double the rest of the habitable world, before this; for so a man may truly term it, if he shall put to account, as well that that is, as that which may be hereafter, by the farther occupation and colonizing of those countries. And yet it cannot be affirmed (if one speak

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ingenuously) that it was the propagation of the christian faith that was the adamant of that discovery, entry, and plantation; but gold and silver, and temporal profit, and glory: so that what was first in God's providence, was but second in man's appetite and intention. The like may be said of the famous navigations and conquests of Emanuel, king of Portugal, whose arms began to circle Africa and Asia; and to acquire, not only the trade of spices, and stones, and milk, and drugs, but footing, and places, in those extreme parts of the east. For neither in this was religion the principal, but amplification and enlargement of riches and dominion. And the effect of these two enterprises is now such, that both the East and the West Indies being met in the crown of Spain, it is come to pass, that, as one faith in a brave kind of expression, the sun never sets in the Spanish dominions, but ever shines upon one part or other of them: which, to say truly, is a beam of glory, though I cannot say it is so solid a body of glory, wherein the crown of Spain surpasseth all the former monarchies. So as, to conclude, we may see, that in these actions, upon gentiles or infidels, only or chiefly, both the spiritual and temporal honour and good have been in one pursuit and purchase conjoined. *Pollio*. Methinks, with your favour, you should remember (Martius) that wild and savage people are like beasts and birds, which are *ferae naturae*, the property of which passeth with the possession, and goeth to the occupant; but of civil people, it is not so. *Martius*. I know no such difference amongst reasonable souls; but that whatsoever is in order to the greatest and most general good of people, may justify the action, be the people more or less civil. But (Eupolis) I shall not easily grant, that the people of Peru, or Mexico, were such brute savages as you intend; or that there should be any such difference between them, and many of the infidels which are now in other parts. In Peru, though they were unapparelled people, according to the climate, and had some customs very barbarous, yet the government of the Incas had many parts of humanity and civility. They had reduced the nations from the adoration of a multitude of idols and fancies, to the adoration of the sun. And, as I remember, the book of Wisdom noteth degrees of idolatry; making that of worshipping petty and vile idols, more gross than simply the worshipping of the creature. And some of the prophets, as I take it, do the like, in the metaphor of more ugly and bestial fornication. The Peruvians also (under the Incas) had magnificent temples of their superstition; they had strict and regular justice; they bare great faith and obedience to their kings; they proceeded in a kind of martial justice with their enemies, offering them their law, as better for their own good, before they drew their sword. And much like was the state of Mexico, being an elective monarchy. As for those people of the east (Goa, Calacate, Malacca) they were a fine and dainty people; frugal and yet elegant, though not military. So that, if things be rightly weighed, the empire of the Turks may be truly affirmed to be more barbarous than any of these. A cruel tyranny, bathed in the blood of their emperors upon every succession; a heap of vassals and slaves; no nobles; no gentlemen; no freemen; no inheritance of land; no stirp or ancient families; a people that is without natural affection; and, as the Scripture saith, that *regardeth not the desires of women*; and without piety, or care towards their children: a nation without morality, without letters, arts, or sciences; that can scarce measure an acre of land, or an hour of the day: base and stutish in buildings, diets, and the like; and in a word, a very reproach of human society; and yet this nation hath made the garden of the world a wilderness: for that, as it is truly said concerning the Turks, where Ottoman's horse sets his foot, people will come up very thin. *Pollio*. Yet in the midst of your invective (Martius) do the Turks this right, as to remember that they are no idolaters: for if, as you say, there be a difference between worshipping a base idol, and the sun, there is a much greater difference between worshipping a creature, and the Creator. For the Turks do acknowledge God the father, creator of heaven and earth, being the first person in the Trinity, though they deny the rest. At which speech, when Martius made some pause, Zebedæus replied with a countenance of great reprehension and severity. *Zebedæus*. We must take heed (Pollio) that we fall not at unawares into the



the heresy of Manuel Comnenus emperor of Gracia, who affirmed, that Mahomet's God was the true God : which opinion was not only rejected and condemned by the synod, but imputed to the emperor as extreme madness ; being reproached to him also by the bishop of Thessalonica, in those bitter and strange words, as are not to be named.

*Martius.* I confess that it is my opinion, that a war upon the Turk is more worthy than upon any other gentiles, infidels, or savages, that either have been, or now are, both in point of religion, and in point of honour ; though facility, and hope of success, might (perhaps invite some other choice. But before I proceed, both myself would be glad to take some breath ; and I shall frankly desire, that some of your lordships would take your turn to speak, that can do it better. But chiefly, for that I see here some that are excellent interpreters of the divine law, though in several ways ; and that I have reason to distrust mine own judgment, both as weak in itself, and as that which may be overborn by my zeal and affection to this cause. I think it were an error to speak farther, till I may see some sound foundation laid of the lawfulness of the action, by them that are better versed in that argument.

*Eupolis.* I am glad (*Martius*) to see in a person of your profession so great moderation, in that you are not transported in an action that warms the blood, and is appearing holy, to blanch or take for admitted the point of lawfulness. And because, methinks, this conference prospers, if your lordships will give me leave, I will make some motion touching the distribution of it into parts. Unto which when they all assented, *Eupolis* said : *Eupolis.* I think it would not sort amiss, if Zebedæus would be pleased to handle the question, Whether a war for the propagation of the christian faith, without other cause of hostility, be lawful or no, and in what cases ? I confess also I would be glad to go a little farther, and to hear it spoken to concerning the lawfulness, not only permissively, but whether it be not obligatory to christian princes and states to design it : which part, if it please Gamaliel to undertake, the point of the lawfulness taken simply will be complete. Yet there resteth the comparative : that is, it being granted, that it is either lawful or binding, yet whether other things be not to be preferred before it ; as extirpation of heresies, reconciliements of schisms, pursuit of lawful temporal rights and quarrels, and the like ; and how far this enterprise ought either to wait upon these other matters, or to be mingled with them, or to pass by them, and give law to them, as inferior unto itself ? And because this is a great part, and Eusebius hath yet said nothing, we will by way of mule or pain, if your lordships think good, lay it upon him. All this while, I doubt much that *Pollio*, who hath a sharp wit of discovery towards what is solid and real, and what is specious and airy, will esteem all this but impossibilities, and eagles in the clouds : and therefore we shall all intreat him to crush this argument with his best forces ; that by the light we shall take from him, we may either cast it away if it be found but a bladder, or discharge it of so much as is vain and not sperable. And because I confess I myself am not of that opinion, although it be an hard encounter to deal with *Pollio*, yet I shall do my best to prove the enterprise possible ; and to shew how all impediments may be either removed or overcome. And then it will be fit for *Martius* (if we do not desert it before) to resume his farther discourse, as well for the persuasive, as for the consult, touching the means, preparations, and all that may conduce unto the enterprise. But this is but my wish, your lordships will put it into better order. They all not only allowed the distribution, but accepted the parts : but because the day was spent, they agreed to defer it till the next morning. Only *Pollio* said ;

*Pollio.* You take me right (*Eupolis*) for I am of opinion, that except you could bray Christendom in a mortar, and mould it into a new paste, there is no possibility of an holy war. And I was ever of opinion, that the philosophers stone, and an holy war, were but the rendezvous of cracked brains, that wore their feather in their head, instead of their hat. Nevertheless, believe me of courtesy, that if you five shall be of another mind, especially after you have heard what I can say, I shall be ready to certify with Hippocrates, that Athens is mad, and Democritus is only sober. And, lest you shall take me for altogether adverse, I will frankly contribute to the business now at first. Ye, no doubt, will amongst



you devise and discourse many solemn matters: but do as I shall tell you. This pope is decrepit, and the bell goeth for him. Take order, that when he is dead, there be chosen a pope of fresh years, between fifty and threescore; and see that he take the name of Urban, because a pope of that name did first institute the croisado, and (as with an holy trumpet) did stir up the voyage for the Holy Land. *Eupolis.* You say well; but be, I pray you, a little more serious in this conference.

The next day the same persons met as they had appointed; and after they were set, and that there had passed some sporting speeches from Pollio, how the war was already begun; for that (he said) he had dreamt of nothing but Janizaries, and Tartars, and Sultans all the night long: *Martius* said. *Martius.* The distribution of this conference, which was made by Eupolis yesternight, and was by us approved, seemeth to me perfect, save in one point; and that is, not in the number, but in the placing of the parts. For it is so disposed, that Pollio and Eupolis shall debate the possibility or impossibility of the action, before I shall deduce the particulars of the means and manner by which it is to be achieved. Now I have often observed in deliberations, that the entering near hand into the manner of performance, and execution of that which is under deliberation, hath quite overturned the opinion formerly conceived, of the possibility or impossibility. So that things, that at the first shew seemed possible, by ripping up the performance of them, have been convicted of impossibility; and things that on the other side have shewed impossible, by the declaration of the means to effect them, as by a back light, have appeared possible, the way through them being discerned. This I speak not to aker the order, but only to desire Pollio and Eupolis not to speak peremptorily, or conclusively, touching the point of possibility, till they have heard me deduce the means of the execution: and that done, to reserve themselves at liberty for a reply, after they had before them, as it were, a model of the enterprize. This grave and solid advertisement and caution of *Martius* was much commended by them all. Whereupon Eupolis said. *Eupolis.* Since *Martius* hath begun to refine that which was yesternight resolved; I may the better have leave (especially in the mending of a proposition, which was mine own) to remember an omission which is more than a misplacing. For I doubt we ought to have added or inserted into the point of lawfulness, the question, how far an holy war is to be pursued, whether to displanting and extermination of people? And again, whether to enforce a new belief, and to vindicate or punish infidelity; or only to subject the countries and people; and so by the temporal sword to open a door for the spiritual sword to enter, by persuasion, instruction, and such means as are proper for souls and consciences? But it may be, neither is this necessary to be made a part by itself; for that *Zebedæus*, in his wisdom, will fall into it as an incident to the point of lawfulness, which cannot be handled without limitations and distinctions. *Zebedæus.* You encourage me (*Eupolis*) in that I perceive, how in your judgment (which I do so much esteem) I ought to take that course, which of myself I was purposed to do. For as *Martius* noted well, that it is but a loose thing to speak of possibilities, without the particular designs; so is it to speak of lawfulness without the particular cases. I will therefore first of all distinguish the cases; though you shall give me leave, in the handling of them, not to sever them with too much preciseness; for both it would cause needles length; and we are not now in arts or methods, but in a conference. It is therefore first to be put to question in general (as Eupolis propounded it) whether it be lawful for christian princes or states, to make an invasive war, only and simply for the propagation of the faith, without other cause of hostility, or circumstance that may provoke and induce the war? Secondly, whether, it being made part of the case, that the countries were once christian, and members of the church, and where the golden candlesticks did stand, though now they be utterly alienated, and no christians left; it be not lawful to make a war to restore them to the church, as an ancient patrimony of Christ? Thirdly, if it be made a farther part of the case, that there are yet remaining in the countries multitudes of christians, whether it be not lawful to make a war to free them, and deliver them from the servitude of the infidels? Fourthly, whether it be not lawful to make



make a war, for the purging and recovery of consecrated places, being now polluted and profaned; as the holy city and sepulchre, and such other places of principal adoration and devotion? Fifthly, whether it be not lawful to make a war, for the revenge or vindication of blasphemies and reproaches against the Deity and our blessed Saviour; or for the effusion of christian blood, and cruelties against christians, though ancient, and long since past; considering that God's visits are without limitation of time; and many times do but expect the fullness of the sin? Sixthly, it is to be considered (as Eupolis now last well remembered) whether a holy war (which, as in the worthiness of the quarrel, so in the justice of the prosecution, ought to exceed all temporal wars) may be pursued, either to the expulsion of people, or the enforcement of consciences, or the like extremities; or how to be moderated and limited; lest whilst we remember we are christians, we forget that others are men? But there is a point that precedeth all these points recited; nay, and in a manner dischargeth them, in the particular of a war against the Turk: which point, I think, would not have come into my thought, but that Martius giving us yesterday a representation of the empire of the Turks, with no small vigour of words (which you, Pollio, called an invective, but was indeed a true charge) did put me in mind of it: and the more I think upon it, the more I settle in opinion; that a war, to suppress that empire, though we set aside the cause of religion, were a just war. After Zebedæus had said this, he made a pause, to see whether any of the rest would say any thing: but when he perceived nothing but silence, and signs of attention to that he would farther say, he proceeded thus.

*Zebedæus.* Your lordships will not look for a treatise from me, but a speech of consultation; and in that brevity and manner will I speak. First, I shall agree, that as the cause of a war ought to be just, so the justice of that cause ought to be evident; not obscure, not scrupulous. For by the consent of all laws, in capital causes, the evidence must be full and clear: and if so where one man's life is in question, what say we to a war, which is ever the sentence of death upon many? We must beware therefore how we make a Moloch, or an heathen idol, of our blessed Saviour, in sacrificing the blood of men to him by an unjust war. The justice of every action consisteth in the merits of the cause, the warrant of the jurisdiction, and the form of the prosecution. As for the inward intention, I leave it to the court of heaven. Of these things severally, as they may have relation to the present subject of a war against infidels; and namely, against the most potent, and most dangerous enemy of the faith, the Turk. I hold, and I doubt not but I shall make it plain (as far as a sum or brief can make a cause plain) that a war against the Turk is lawful, both by the laws of nature and nations, and by the law divine, which is the perfection of the other two. As for the laws positive and civil of the Romans, or others whatsoever, they are too small engines to move the weight of this question. And therefore, in my judgment, many of the late school men, though excellent men, take not the right way in disputing this question; except they had the gift of Navius, that they could, *cotem novacula scindere*, hew stones with pen-knives. First, for the law of nature. The philosopher Aristotle is no ill interpreter thereof. He hath set many men on work with a witty speech of *natura dominus*, and *natura servus*; affirming expressly and positively, that from the very nativity, some things are born to rule, and some things to obey: which oracle hath been taken in divers senses. Some have taken it for a speech of ostentation, to entitle the Grecians to an empire over the Barbarians; which indeed was better maintained by his scholar Alexander. Some have taken it for a speculative platform, that reason and nature would that the best should govern; but not in any wise to create a right. But for my part, I take it neither for a brag, nor for a wish; but for a truth as he limiteth it. For he saith, that if there can be found such an inequality between man and man, as there is between man and beast, or between soul and body, it investeth a right of government: which seemeth rather an impossible case, than an untrue sentence. But I hold both the judgment true, and the case possible; and such as hath had, and hath a being, both in particular men and nations. But ere we go farther, let us confine ambiguities and mistakings, that



that they trouble us not. First, to say that the more capable, or the better deserver, hath such right to govern, as he may compulsorily bring under the less worthy, is idle. Men will never agree upon it, who is the more worthy. For it is not only in order of nature, for him to govern that is the more intelligent, as Aristotle would have it; but there is no less required for government, courage to protect; and above all, honesty and probity of the will to abstain from injury. So fitness to govern is a perplexed business. Some men, some nations, excel in the one ability, some in the other. Therefore the position which I intend, is not in the comparative, that the wiser, or the stouter, or the juster nation should govern; but in the privative, that where there is an heap of people (though we term it a kingdom or state) that is altogether unable or indignant to govern; there it is a just cause of war for another nation, that is civil or policed, to subdue them: and this, though it were to be done by a Cyrus or a Cæsar, that were no Christian. The second mistaking to be banished is, that I understand not this of a personal tyranny, as was the state of Rome under a Caligula, or a Nero, or a Commodus: shall the nation suffer for that wherein they suffer? But when the constitution of the state, and the fundamental customs and laws of the same (if laws they may be called) are against the laws of nature and nations, then, I say, a war upon them is lawful. I shall divide the question into three parts. First, whether there be, or may be any nation or society of men, against whom it is lawful to make a war, without a precedent injury or provocation? Secondly, what are those breaches of the law of nature and nations, which do forfeit and divest all right and title in a nation to govern? And thirdly, whether those breaches of the law of nature and nations be found in any nation at this day; and namely in the empire of the Ottomans? For the first, I hold it clear that such nations, or states, or societies of people, there may be and are. There cannot be a better ground laid to declare this, than to look into the original donation of government. Observe it well, especially the inducement, or preface. Saith God: *Let us make man after our own image, and let him have dominion over the fishes of the sea, and the fowls of the air, and the beasts of the land, etc.* Hereupon De Victoria, and with him some others, infer excellently, and extract a most true and divine aphorism, *Non fundatur dominium, nisi in imagine Dei.* Here we have the charter of foundation: it is now the more easy to judge of the forfeiture or seizure. Deface the image, and you divest the right. But what is this image, and how is it defaced? The poor men of Lyons, and some fanatical spirits, will tell you, that the image of God is purity; and the defacement, sin. But this subverteth all government: neither did Adam's sin, or the curse upon it, deprive him of his rule, but left the creatures to a rebellion or relutation. And therefore if you note it attentively, when this charter was renewed unto Noah and his sons, it is not by the words, *You shall have dominion; but Your fear shall be upon all the beasts of the land, and the birds of the air, and all that moveth*: not regranting the sovereignty, which stood firm; but protecting it against the relutation. The sound interpreters therefore expound this image of God, of natural reason; which if it be totally or mostly defaced, the right of government doth cease: and if you mark all the interpreters well, still they doubt of the case, and not of the law. But this is properly to be spoken to in handling the second point, when we shall define of the defacements. To go on: The prophet Hosea, in the person of God, saith of the Jews; *They have reigned, but not by me; they have set a seignior over themselves, but I knew nothing of it.* Which place proveth plainly, that there are governments which God doth not avow. For though they be ordained by his secret providence, yet they are not acknowledged by his revealed will. Neither can this be meant of evil governors or tyrants: for they are often avowed and established, as lawful potentates; but of some perverseness and defection in the very nation itself; which appeareth most manifestly in that the prophet speaketh of the seignior *in abstracto*, and not of the person of the Lord. And although some hereticks of those we speak of have abused this text, yet the sun is not soiled in passage. And again, if any man infer upon the words of the prophet following (which declare this rejection, and, to use the words of the text, rescission of their estate to have been for their idolatry) that by this reason the governments of all idolatrous nations should be

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also dissolved (which is manifestly untrue) in my judgment it followeth not. For the idolatry of the Jews then, and the idolatry of the Heathen then and now, are sins of a far differing nature, in regard of the special covenant, and the clear manifestations wherein God did contract and exhibit himself to that nation. This nullity of policy, and right of estate in some nations, is yet more significantly expressed by Moses in his canticle; in the person of God to the Jews: *We have incensed me with gods that are no gods, and I will increase you with a people that are no people*: Such as were (no doubt) the people of Canaan, after seisin was given of the land of promise to the Israelites. For from that time their right to the land was dissolved, though they remained in many places unconquered. By this we may see, that there are nations in name, that are no nations in right; but multitudes only, and swarms of people. For like as there are particular persons outlawed and proscribed by civil laws of several countries; so are there nations that are outlawed and proscribed by the law of nature and nations, or by the immediate commandment of God. And as there are kings *de facto*, and not *de jure*, in respect of the nullity of their title; so are there nations that are occupants *de facto*, and not *de jure*, of their territories, in respect of the nullity of their policy or government. But let us take in some examples into the midst of our proofs; for they will prove as much as put after, and illustrate more. It was never doubted, but a war upon pirates may be lawfully made by any nation, though not infested or violated by them. Is it because they have not *certain sedes*, or *lars*? In the piratical war which was atchieved by Pompey the Great, and was his truest and greatest glory, the pirates had some cities, sundry ports, and a great part of the province of Cilicia; and the pirates now being, have a receptacle and mansion in Algiers. Beasts are not the less savage because they have dens. Is it because the danger hovers as a cloud, that a man cannot tell where it will fall; and so it is every man's case? The reason is good, but it is not all, nor that which is most alledged. For the true received reason is, that pirates are *communes humani generis hostes*; whom all nations are to prosecute, not so much in the right of their own fears, as upon the band of human society. For as there are formal and written leagues, respective to certain enemies; so is there a natural and tacite confederation amongst all men, against the common enemy of human society. So as there needs no intimation, or denunciation of the war; there needs no request from the nation grieved; but all these formalities the law of nature supplies in the case of pirates. The same is the case of rovers by land; such as yet are some cantons in Arabia; and some petty kings of the mountains, adjacent to straits and ways. Neither is it lawful only for the neighbour princes to destroy such pirates or rovers, but if there were any nation never so far off, that would make it an enterprize of merit and true glory (as the Romans that made a war for the liberty of Græcia from a distant and remote part) no doubt they might do it. I make the same judgment of that kingdom of the assassins now destroyed, which was situate upon the borders of Saraca; and was for a time a great terror to all the princes of the Levant. There the custom was, that upon the commandment of their king, and a blind obedience to be given therunto, any of them was to undertake, in the nature of a votary, the infamous murder of any prince, or person, upon whom the commandment went. This custom, without all question, made their whole government void, as an engine built against human society, worthy by all men to be fired and pulled down. I say the like of the anabaptists of Munster; and this, although they had not been rebels to the empire; and put case likewise that they had done no mischief at all actually, yet if there shall be a congregation and consent of people, that shall hold all things to be lawful, not according to any certain laws or rules, but according to the secret and variable motions and instincts of the spirit; this is indeed no nation, no people, no feignery, that God doth know: any nation that is civil and policed, may (if they will not be reduced) cut them off from the face of the earth. Now let me put a feigned case (and yet antiquity makes it doubtful, whether it were fiction or history) of a land of Amazons, where the whole government publick and private, yea, the militia itself, was in the hands of women. I demand, is not such a preposterous government (against the first order of nature, for women to rule over men) in itself void,



void, and to be suppressed? I speak not of the reign of women (for that is supplied by counsel, and subordinate magistrates masculine) but where the regiment of state, justice, families, is all managed by women. And yet this last case differs from the other before, because in the rest there is terror of danger, but in this there is only error of nature. Neither should I make any great difficulty to affirm the same of the soltany of the Mamalukes; where slaves, and none but slaves, bought for money, and of unknown descent, reigned over families of freemen. And much like were the case, if you suppose a nation, where the custom were, that after full age the sons should expulse their fathers and mothers out of their possessions, and put them to their pensions: for these cases, of women to govern men, sons the fathers, slaves freemen, are much in the same degree; all being total violations and perversions of the laws of nature and nations. For the West-Indies, I perceive (Martius) you have read Garcilazzo de Viera, who himself was descended of the race of the Incas, a Mestizo, and is willing to make the best of the virtues and manners of his country: and yet in truth he doth it soberly and credibly enough. Yet you shall hardly edify me, that those nations might not by the law of nature have been subdued by any nation, that had only policy and moral virtue; though the propagation of the faith (whereof we shall speak in the proper place) were set by, and not made part of the case. Surely their nakedness (being with them, in most parts of that country, without all veil or covering) was a great disacement: for in the acknowledgement of nakedness was the first sense of sin; and the heresy of the Adamites was ever accounted an affront of nature. But upon these I stand not; nor yet upon their idioy, in thinking that horses did eat their bits, and letters speak, and the like: nor yet upon their forceries, which are (almost) common to all idolatrous nations. But, I say, their sacrificing, and more especially their eating of men, is such an abomination as (methinks) a man's face should be a little confus'd, to deny, that this custom, joined with the rest, did not make it lawful for the Spaniards to invade their territory, forfeited by the law of nature; and either to reduce them or displant them. But far be it from me, yet nevertheless, to justify the cruelties which were at first used towards them: which had their reward soon after, there being not one of the principal of the first conquerors, but died a violent death himself; and was well followed by the deaths of many more. Of examples enough: except we should add the labours of Hercules; an example, which though it be flourish'd with much fabulous matter, yet so much it hath, that it doth notably set forth the consent of all nations and ages, in the approbation of the extirpating and debelling of giants, monsters, and foreign tyrants, not only as lawful, but as meritorious even of divine honour: and this although the deliverer came from the one end of the world unto the other. Let us now set down some arguments to prove the same; regarding rather weight than number, as in such a conference as this is fit. The first argument shall be this. It is a great error, and a narrowness or straitness of mind, if any man think, that nations have nothing to do one with another, except there be either an union in sovereignty, or a conjunction in pacts or leagues. There are other bands of society, and implicit confederations. That of colonies, or transmigrants, towards their mother nation. *Genes unius labii* is somewhat; for as the confusion of tongues was a mark of separation, so the being of one language is a mark of union. To have the same fundamental laws and customs in chief is yet more, as it was between the Grecians in respect of the barbarians. To be of one sect or worship; if it be a false worship, I speak not of it, for that is but *fratres in malo*. But above all these, there is the supreme and indissoluble consanguinity and society between men in general: of which the heathen poet (whom the apostle calls to witness) saith, *We are all his generation*. But much more we christians, unto whom it is revealed in particularity, that all men came from one lump of earth; and that two singular persons were the parents from whom all the generations of the world are descended: we (I say) ought to acknowledge, that no nations are wholly aliens and strangers the one to the other; and not to be less charitable than the person introduced by the comick poet, *Homo sum, humani nihil a me alienum*



*puto.* Now if there be such a tacit league or confederation, sure it is not idle; it is against somewhat, or somebody: who should they be? Is it against wild beasts; or the elements of fire and water? No, it is against such routs and shoals of people, as have utterly degenerated from the laws of nature; as have in their very body and frame of estate a monstrosity; and may be truly accounted (according to the examples we have formerly recited) common enemies and grievances of mankind; or disgraces and reproaches to human nature. Such people, all nations are interested, and ought to be resenting, to suppress; considering that the particular states themselves, being the delinquents, can give no redress. And this, I say, is not to be measured so much by the principles of jurists, as by *lex charitatis*; *lex proximi*, which includes the Samaritan as well as the Levite; *lex filiorum Mæ de massa una*: upon which original laws this opinion is grounded: which to deny (if a man may speak freely) were almost to be a schismatick in nature.

*The rest was not perfected.*

## The Lord BACON'S QUESTIONS

About the Lawfulness of a

## WAR for the Propagating of RELIGION.

Questions wherein I desire opinion, joined with arguments and authorities.

Tenison's  
Baconia-  
no,  
p. 179.

**W**HETHER a war be lawful against infidels, only for the propagation of the christian faith, without other cause of hostility?

Whether a war be lawful, to recover to the church countries which formerly have been christian, though now alienate, and christians utterly extirpated?

Whether a war be lawful to free and deliver christians that yet remain in slavery, and subjection, to infidels?

Whether a war be lawful in revenge, or vindication, of blasphemy and reproaches against the Deity and our Saviour? Or for the ancient effusion of christian blood, and cruelties upon christians?

Whether a war be lawful for the restoring and purging of the holy land, the sepulchre, and other principal places of adoration and devotion?

Whether, in the cases aforesaid, it be not obligatory to christian princes, to make such a war, and not permissive only?

Whether the making of a war against the infidels, be not first in order of dignity, and to be preferred before extirpations of heresies, reconcilements of schisms, reformation of manners, pursuits of just temporal quarrels, and the like actions for the publick good; except there be either a more urgent necessity, or a more evident facility in those inferior actions, or except they may both go on together in some degree?

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## SPEECH concerning a War with SPAIN.

**T**HAT ye conceive there will be little difference in opinion, but that all will advise the king not to entertain further a treaty, wherein he hath been so manifestly and so long deluded.

That the difficulty therefore will be in the consequences thereof; for to the breach of treaty, doth necessarily succeed a despair of recovering the Palatinate by treaty, and so the business falleth upon a war. And to that you will apply your speech, as being the point of importance, and besides, most agreeable to your profession and place.

To a war (such as may promise success) there are three things required: a just quarrel; sufficient forces and provisions; and a prudent and politic choice of the designs and actions whereby the war shall be managed.

For the quarrel, there cannot be a more just quarrel by the laws both of nature and nations, than for the recovery of the ancient patrimony of the king's children, gotten from them by an usurping sword, and an insidious treaty.

But further, that the war well considered is not for the Palatinate only, but for England and Scotland; for if we stay till the Low Countrymen be ruined, and the party of the papists within the realm be grown too strong, England, Scotland, and Ireland, are at the stake.

Neither doth it concern the state only, but our church: other kings, papists, content themselves to maintain their religion in their own dominions; but the kings of Spain run a course to make themselves protectors of the popish religion, even amongst the subjects of other kings: almost like the Ottomans, that profess to plant the law of Mahomet by the sword; and so the Spaniards do of the pope's law. And therefore if either the king's blood, or our own blood, or Christ's blood be dear unto us, the quarrel is just, and to be embraced.

For the point of sufficient forces, the balancing of the forces of these kingdoms and their allies with Spain and their allies, you know to be a matter of great and weighty consideration; but yet to weigh them in a common understanding, for your part, you are of opinion that Spain is no such giant; or if he be a giant, it will be but like Goliath and David, for God will be on our side.

But to leave these spiritual considerations: you do not see in true discourse of peace and war, that we ought to doubt to be overmatched. To this opinion you are led by two things which lead all men; by experience, and by reason.

For experience; you do not find that for this age (take it for 100 years) there was ever any encounter between Spaniards and English of importance, either by sea or land, but the English came off with the honour; witness the Lanthmas-Day, the retreat of Gaunt, the battle of Newport, and some others: but there have been some actions both by sea and land, so memorable as scarce suffer the less to be spoken of. By sea, that of eighty-eight, when the Spaniards, putting themselves most upon their stirrups, sent forth that invincible Armada which should have swallowed up England quick; the success whereof was, that although that fleet swam like mountains upon our seas, yet they did not so much as take a cock-boat of ours at sea, nor fire a cottage at land, but came through our channel, and were driven, as Sir Walter Raleigh says, by squibs (fire-boats he means) from Calais, and were soundly beaten by our ships in fight, and many of them sunk, and finally durst not return the way they came, but made a scattered perambulation, full of shipwrecks, by the Irish and Scottish seas to get home again; just according to the curse of the Scripture, *that they came out against us one way, and fled before us seven ways.* By land, who can forget the two voyages made upon



## NOTES OF A SPEECH CONCERNING

upon the continent itself of Spain, that of Lisbon, and that of Calés, when in the former we knocked at the gates of the greatest city either of Spain or Portugal, and came off without seeing an enemy to look upon us in the face? And though we failed in our foundation (for that Antonio, whom we thought to replace in his kingdom, found no party at all) yet it was a true trial of the gentleness of Spain, which suffered us to go and come without any dispute. And for the latter, of Calés, it ended in victory; we ravished a principal city of wealth and strength in the high countries, sacked it, fired the Indian fleet that was in the port, and came home in triumph; and yet to this day were never put in suit for it, nor demanded reason for our doings. You ought not to forget the battle of Kinale in Ireland, what time the Spanish forces were joined with the Irish (good soldiers as themselves, or better) and exceeded us far in number, and yet they were soon defeated, and their general D'Avila taken prisoner, and that war by that battle quenched and ended.

And it is worthy to be noted how much our power in those days was inferior to our present state. Then, a lady old, and owner only of England, intangled with the revolt of Ireland, and her confederates of Holland much weaker, and in no conjuncture. Now, a famous king, and strengthened with a pride of singular expectation, and in the prime of his years, owner of the entire isle of Britain, enjoying Ireland populate and quiet, and infinitely more supported by confederates of the Low Countries, Denmark, divers of the princes of Germany, and others. As for the comparison of Spain as it was then, and as it is now, you will for good respects forbear to speak; only you will say this, that Spain was then reputed to have the wisest council of Europe, and not a council that will come at the whistle of a favourite.

Another point of experience you would not speak of, if it were not that there is a wonderful erroneous observation, which walketh about, contrary to all the true account of time; and it is, that the Spaniard where he once gets in, will seldom or never be got out again (and they give it an ill-favoured smile which you will not name) but nothing is less true: they got footing at Brest, and some other parts in Britain, and quitted it: they had Calais, Ardes, Attiens, and were part beaten out, and part they rendered: they had Vercelles in Savoy and fairly left it: they had the other day the Valtoine, and now have put it in dispute. What they will do at Ormus we shall see. So that, to speak truly of latter times, they have rather poached and offered at a number of enterprises, than maintained any constantly. And for Germany, in more ancient time, their great emperor Charles, after he had Germany almost in his fist, was forced in the end to go from Ilburgh as it were in a mask by torch-light, and to quit every foot of his new acquets in Germany, which you hope likewise will be the hereditary issue of this late purchase of the Palatinate. And thus much for experience.

For reason: it hath many branches; you will but extract a few first. It is a nation thin sown of men, partly by reason of the sterility of their soil; and partly because their natives are exhaust by so many employments in such vast territories as they possess, so that it hath been counted a kind of miracle to see together ten or twelve thousand native Spaniards in an army. And although they have at this time great numbers of miscellany soldiers in their armies and garrisons, yet, if there should be the misfortune of a battle, they are ever long about it to draw on supplies.

They tell a tale of a Spanish ambassador that was brought to see their treasury of St. Mark at Venice, and still he looked down to the ground; and being asked the reason, said, "he was looking to see whether the treasure had any root, so that, if that were spent, it would grow again; as his master's had." But, however it be of their treasure, certainly their forces have scarcely any root, or at least such a root as putteth forth very poorly and slowly; whereas there is not in the world again such a spring and seminary of military people as is England, Scotland, and Ireland; nor of seamen as is this island, and the Low Countries: so as if the wars should mow them down, yet they suddenly may be supplied and come up again.



A second reason is (and it is the principal) that if we truly consider the greatness of Spain, it consisteth chiefly in their treasure, and their treasure in their Indies, and their Indies (both of them) is but an accession to such as are masters by sea; so as this axle-tree, whereupon their greatness turns, is soon cut a-two by any that shall be stronger than they at sea. So then you report yourself to their opinions, and the opinions of all men, enemies or whosoever; whether that the maritime forces of Britain, and the Low Countries, are not able to beat them at sea. For if that be, you see the chain is broken from shipping to Indies, from Indies to treasure, and from treasure to greatness.

The third reason (which hath some affinity with this second) is a point comfortable to hear in the state that we now are; wars are generally causes of poverty and consumption. The nature of this war, you are persuaded, will be matter of restorative and enriching; so that, if we go roundly on with supplies and provisions at the first, the war in continuance will find itself. That you do but point at this, and will not enlarge it.

Lastly, That it is not a little to be considered, that the greatness of Spain is not only distracted extremely, and therefore of less force; but built upon no very sound foundations, and therefore they can have the less strength by any assured and confident confederacy. With France they are in competition for Navarre, Milan, Naples, and the Franche County of Burgundy; with the see of Rome, for Naples also; for Portugal, with the right heirs of that line; for that they have in their Low Countries, with the United Provinces; for Ormus (now) with Persia; for Valencia, with the Moors expelled and their confederates; for the East and West Indies, with all the world. So that if every bird had his feather, Spain would be left wonderful naked. But yet there is a greater confederation against them than by means of any of these quarrels or titles; and that is contracted by the fear that almost all nations have of their ambition, whereof men see no end. And thus much for the balancing of their forces.

For the last point, which is the choice of the designs and enterprises, in which to conduct the war; you will not now speak, because you should be forced to descend to divers particulars, whereof some are of a more open, and some of a more secret nature. But that you would move the house to make a selected committee for that purpose; not to estrange the house in any sort, but to prepare things for them, giving them power and commission to call before them, and to confer with any martial men or others that are not of the house, that they shall think fit, for their advice and information: and so to give an account of the business to a general committee of the whole house.



# CONSIDERATIONS

TOUCHING

A WAR with SPAIN.

Inscribed to Prince CHARLES, AN. MDCXXIV.

**Y**OUR highness hath an imperial name. It was a Charles that brought the empire first into France; a Charles that brought it first into Spain; why should not Great Britain have its turn? But to lay aside all that may seem to have a shew of fumes and fancies, and to speak solids: a war with Spain (if the king shall enter into it) is a mighty work; it requireth strong materials, and active motions. He that saith not so, is zealous, but not according to knowledge. But nevertheless Spain is no such giant: and he that thinketh Spain to be some great over-match for this estate, assisted as it is, and may be, is no good mind-man; but takes greatness of kingdoms according to their bulk and currency, and not after their intrinsic value. Although therefore I had wholly sequestered my thoughts from civil affairs, yet because it is a new case, and concerneth my country infinitely, I obtained of myself to set down, out of long continued experience in business of estate, and much conversation in books of policy and history, what I thought pertinent to this business; and in all humbleness present it to your highness: hoping that at least you will discern the strength of my affection, through the weakness of my abilities: for the Spaniard hath a good proverb, *De suario si empire con la calentura*; there is no heat of affection, but is joined with some idleness of brain.

To a war are required, a just quarrel; sufficient forces and provisions; and a prudent choice of the designs. So then, I will first justify the quarrel; secondly, balance the forces; and lastly, propound variety of designs for choice, but not advise the choice; for that were not fit for a writing of this nature; neither is it a subject within the level of my judgment; I being, in effect, a stranger to the present occurrences.

Wars (I speak not of ambitious predatory wars) are suits of appeal to the tribunal of God's justice, where there are no superiors on earth to determine the cause: and they are (as civil pleas are) plaints, or defences. There are therefore three just grounds of war with Spain; one plaint, two upon defence. Solomon saith, *A cord of three is not easily broken*: but especially when every of the lines would hold single by itself. They are these: the recovery of the Palatinate; a just fear of the subversion of our civil estate; a just fear of the subversion of our church and religion. For in the handling of the two last grounds of war, I shall make it plain, that wars preventive upon just fears, are true defences, as well as upon actual invasions: and again, that wars defensive for religion (I speak not of rebellion) are most just; though offensive wars for religion are seldom to be approved, or never, unless they have some mixture of civil titles. But all that I shall say in this whole argument, will be but like bottoms of thread close wound up, which with a good needle (perhaps) may be flourished into large works.

For the asserting of the justice of the quarrel, for the recovery of the Palatinate, I shall not go so high as to discuss the right of the war of Bohemia; which if it be freed from doubt on our part, then there is no colour nor shadow why the Palatinate should be retained; the ravishing whereof was a mere excusation of



the first wrong, and a super-injustice. But I do not take myself to be so perfect in the customs, transactions, and privileges of that kingdom of Bohemia, as to be fit to handle that part: and I will not offer at that I cannot master. Yet this I will say (in passage) positively and resolutely; that it is impossible an elective monarchy should be so free and absolute as an hereditary; no more than it is possible for a father to have so full power and interest in an adoptive son, as in a natural; *quia naturalis obligatio fortior civili*. And again, that received maxim is almost unshaken and infallible; *Nil magis naturae consentaneum est, quam ut eisdem modis res dissolvantur, quibus constituntur*. So that if the part of the people or estate be somewhat in the election, you cannot make them nulls or cyphers in the privation or translation. And if it be said, that this is a dangerous opinion for the pope, emperor, and elective kings; it is true it is a dangerous opinion, and ought to be a dangerous opinion, to such personal popes, emperors, or elective kings, as shall transcend their limits, and become tyrannical. But it is a safe and sound opinion for their sees, empires, and kingdoms; and for themselves also, if they be wise; *plenitudo potestatis est plenitudo tempestatis*. But the chief cause why I do not search into this point is, because I need it not. And in handling the right of a war, I am not willing to intermix matter doubtful with that which is out of doubt. For as in capital causes, wherein but one man's life is in question, *in favorem vitae*, the evidence ought to be clear; so much more in a judgment upon a war, which is capital to thousands. I suppose therefore the worst, that the offensive war upon Bohemia had been unjust; and then make the case, which is no sooner made than resolved; if it be made not enveloped, but plainly and perspicuously. It is this *in thesi*. An offensive war is made, which is unjust in the aggressor; the prosecution and race of the war carrieth the defendant to assail and invade the ancient and indubitate patrimony of the first aggressor, who is now turned defendant; shall he sit down, and not put himself in defence? Or if he be disposed, shall he not make a war for the recovery? No man is so poor of judgment as will affirm it. The castle of Cadmus was taken, and the city of Thebes itself invested by Phoebidas the Lacedaemonian, insidiously, and in violation of league: the process of this action drew on a surprize of the castle by the Thebans, a recovery of the town, and a current of the war even unto the walls of Sparta. I demand, was the defence of the city of Sparta, and the expulsion of the Thebans out of the ancient Laconian territories, unjust? The sharing of that part of the duchy of Milan, which lieth upon the river of Adda, by the Venetians, upon contract with the French, was an ambitious and unjust purchase. This wheel set on going, did pour a war upon the Venetians with such a tempest, as Padua and Trevigi were taken from them, and all their dominions upon the continent of Italy abandoned, and they confined within the salt waters. Will any man say, that the memorable recovery and defence of Padua (when the gentlemen of Venice, unused to the wars, out of the love of their country, became brave and martial the first day) and so likewise the redeption of Trevigi, and the rest of their dominions, was matter of scruple, whether just or no, because it had source from a quarrel ill begun? The war of the duke of Urbin, nephew to pope Julius the second, when he made himself head of the Spanish mutineers, was as unjust as unjust might be; a support of desperate rebels; an invasion of St. Peter's patrimony; and what you will. The race of this war fell upon the loss of Urbin itself, which was the duke's undoubted right; yet, in this case, no penitentiary (though he had enjoined him never so strait penance to expiate his first offence) would have counselled him to have given over the pursuit of his right for Urbin; which, after, he prosperously reobtained, and hath transmitted to his family yet until this day. Nothing more unjust than the invasion of the Spanish Armada in 88, upon our seas; for our land was holy land to them, they might not touch it; shall I say therefore, that the defence of Lisbon, or Cales, afterwards, was unjust? There be thousands of examples; *ut in re non dubia exemplis non necessariis*: the reason is plain; wars are *vindictae*, revenges, reparations. But revenges are not infinite, but according to the measure of the first wrong or damage. And therefore when a voluntary offensive war, by the design or fortune of the war, is

turned



turned to a necessary defensive war, the scene of the tragedy is changed, and it is a new act to begin. For the particular actions of war, though they are complicate in fact, yet they are separate and distinct in right; like to crois suits in civil pleas, which are sometimes both just. But this is so clear, as needeth no farther to be insisted upon. And yet if in things so clear, it were fit to speak of more or less clear in our present cause, it is the more clear on our part, because the possession of Bohemia is settled with the emperor. For though it be true, that *non datur compensatio injuriarum*; yet were there somewhat more colour to detain the Palatinate, as in the nature of a recovery, in value or compensation, if Bohemia had been lost, or were still the stage of war. Of this therefore I speak no more. As for the title of prescription or forfeiture, wherein the emperor (upon the matter) hath been judge and party, and hath justified himself, God forbid but that it should well endure an appeal to a war. For certainly the court of heaven is as well a chancery to save and debar forfeitures, as a court of common law to decide rights; and there would be work enough in Germany, Italy, and other parts, if imperial forfeitures should go for good titles.

Thus much for the first ground of war with Spain, being in the nature of a plaint for the recovery of the Palatinate; omitting here that which might be the seed of a larger discourse, and is verified by a number of examples; that whatsoever is gained by an abusive treaty, ought to be restored *in integrum*: as we see the daily experience of this in civil pleas; for the images of great things are best seen contracted into small glasses: we see (I say) that all pretorian courts, if any of the parties be entertained or laid asleep, under pretence of arbitrement or accord, and that the other party, during that time, doth cautelously get the start and advantage at common-law, though it be to judgment and execution; yet the pretorian court will set back all things *in statu quo prius*, no respect had to such eviction or dispossession. Lastly, let there be no mistaking; as if when I speak of a war for the recovery of the Palatinate, I meant, that it must be *in linea recta*, upon that place: for look into *jus faciale*, and all examples, and it will be found to be without scruple, that after a legation *ad res repetendas*, and a refusal, and a denunciation or indiction of a war, the war is no more confined to the place of the quarrel, but is left at large and to choice (as to the particular conducting designs) as opportunities and advantages shall invite.

To proceed therefore to the second ground of a war with Spain, we have set it down to be, a just fear of the subversion of our civil estate. So then, the war is not for the Palatinate only, but for England, Scotland, Ireland, our king, our prince, our nation, all that we have. Wherein two things are to be proved. The one, that a just fear (without an actual invasion or offence) is a sufficient ground of a war, and in the nature of a true defensive: the other, that we have towards Spain cause of just fear; I say, just fear: for as the civilians do well define, that the legal fear is *justus metus qui cadit in constantem virum*, in private causes: so there is *justus metus qui cadit in constantem senatum*, in *causa publica*; not out of umbrages, light jealousies, apprehensions afar off, but out of clear foresight of imminent danger.

Concerning the former proposition, it is good to hear what time faith. Thucydides, in his inducement to his story of the great war of Peloponnesus, sets down in plain terms, that the true cause of that war was, the overgrowing greatness of the Athenians, and the fear that the Lacedaemonians stood in thereby; and doth not doubt to call it, a necessity imposed upon the Lacedaemonians of a war; which are the words of a mere defensive: adding, that the other causes were but specious and popular. *Verissimam quidem, sed minime sermone celebratam, arbitror extitisse belli causam, Athenienses, magnos effectos et Lacedaemoniis formidolosos, necessitatem illis imposuisse bellandi: quae autem propalam ferebantur utrinque causae, istae fuerant, etc.* "The truest cause of this war, though least voiced, I conceive to have been this; that the Athenians, being grown great, to the terror of the "Lacedaemonians, did impose upon them a necessity of a war: but the "causes that went abroad in speech were these," etc. Sulpitius Galba, consul, when he persuaded the Romans to a preventive war, with the later Philip king of Macedon, in regard of the great preparations which Philip had then on foot, and



and his designs to ruin some of the confederates of the Romans, confidently saith, that they who took that for an offensive war, understood not the state of the question. *Ignorare videmini mihi (Quirites) non, utrum bellum an pacem habeatis, vos consuli (neque enim liberum id vobis permittet Philippus, qui terra marique ingens bellum molitur) sed utrum in Macedoniam legiones transportetis, an hostem in Italiam recipiatis.* “Ye seem to me (ye Romans) not to understand, that the consultation before you is not, whether you shall have war or peace (for Philip will take order you shall be no chusers, who prepareth a mighty war both by land and sea) but whether you shall transport the war into Macedon, or receive it into Italy.” Antiochus, when he incited Prusias king of Bithynia (at that time in league with the Romans) to join with him in war against them, setteth before him a just fear of the overpreparing greatness of the Romans, comparing it to a fire that continually took, and spread from kingdom to kingdom: *Venire Romanos ad omnia regna tollenda, ut nullum usquam orbis terrarum nisi Romanum imperium esset; Philippum et Nabin expugnatos, se tertium peti; ut quisque proximus ab oppresso sit, per omnes velut continens incendium pervasurum:* “I hat the Romans came to pull down all kingdoms, and to make the state of Rome an universal monarchy; that Philip and Nabis were already ruined, and now was his turn to be assailed: so that as every state lay next to the other that was oppressed, so the fire perpetually grazed.” Wherein it is well to be noted, that towards ambitious states (which are noted to aspire to great monarchies, and to seek upon all occasions to enlarge their dominions) *crecunt argumenta justis metus*; all particular fears do grow and multiply out of the contemplation of the general courses and practice of such states. Therefore in deliberations of war against the Turk, it hath been often, with great judgment, maintained, that Christian princes and states have always a sufficient ground of invasive war against the enemy: not for cause of religion, but upon a just fear; forasmuch as it is a fundamental law, in the Turkish empire, that they may (without any other provocation) make war upon Christendom for the preparation of their law; so that there lieth upon the Christians a perpetual fear of a war (hanging over their heads) from them; and therefore they may at all times (as they think good) be upon the prevention. Demosthenes expositeth to scorn wars which are not preventive, comparing those that make them to country fellows in a fencing-school, that never ward till the blow be past: *Vi barbari pugiles dimicare solent, ita vos bellum geritis cum Philippo: ex his enim is, qui ictus est, ictui semper inheret: quod si cum alibi verberes, illo manus transfert; ictum autem depellere, aut proferre, neque scit neque vult.* “As country fellows use to do when they play at waters, such a kind of war do you (Athenians) make with Philip; for with them he that gets a blow, straight falleth to ward when the blow is passed; and if you strike him in another place, thither goes his hand likewise: but to put by, or foresee a blow, they neither have the skill, nor the will.”

Clinias the Candian (in Plato) speaks desperately and wildly, as if there were no such thing as peace between nations; but that every nation expects but his advantage to war upon another. But yet in that excess of speech there is thus much that may have a civil construction; namely, that every state ought to stand upon his guard, and rather prevent than be prevented. His words are, *Quam rem fere vocant pacem, nudum et inane nomen est; revera autem omnibus, adversus omnes civitates, bellum semper incertum perdurat.* “That which men for the most part call peace, is but a naked and empty name; but the truth is, that there is ever between all estates a secret war.” I know well this speech is the objection and not the decision, and that it is after refused; but yet (as I said before) it bears thus much of truth, that if that general malignity, and pre-disposition to war (which he untruly figureth to be in all nations) be produced and extended to a just fear of being oppressed, then it is no more a true peace, but a name of a peace.

As for the opinion of Iphicrates the Athenian, it demands not so much towards a war as a just fear, but rather cometh near the opinion of Clinias; as if there were ever amongst nations a brooding of a war, and that there is no sure league



but, in consequence to do hurt. For he, in the treaty of peace with the Lacedæmonians, speaketh plain language; telling them, there could be no true and secure peace, except the Lacedæmonians yielded to those things, which being granted, it would be no longer in their power to hurt the Athenians, though they would, and to say truth, if one mark it well, this was in all memory the main piece of wisdom, in strong and prudent counsels, to be in perpetual watch, that the states about them should neither by approach, nor by encrease of dominion, nor by ruining confederates, nor by blocking of trade, nor by any the like means, have it in their power to hurt or annoy the states they serve; and whatsoever any such cause did but appear, straightways to buy it out with a war, and never take up peace at credit, and upon interest. It is so memorable, as it is yet as fresh as if it were done yesterday, how that triumvirate of kings (Henry the eighth of England, Francis the first of France, and Charles the fifth emperor and king of Spain) were in their times so provident, as scarce a palm of ground could be gotten by either of the three, but that the other two would be sure to do their best, to set the balance of Europe upright again. And the like diligence was used, in the age before by that league (wherewith Guicciardine beginneth his story, and maketh it, as it were, the calendar of the good days of Italy) which was contracted between Ferdinando king of Naples, Lorenzo of Medici potentate of Florence, and Lodovico Sforza duke of Milan, designed chiefly against the growing power of the Venetians; but yet so, as the confederates had a perpetual eye one upon another, that none of them should overtop. To conclude therefore; howsoever some schoolmen (otherwise reverend men, yet fitter to guide penknives than swords) seem precisely to stand upon it, that every offensive war must be *ultra*, a revenge, that presupposeth a precedent assault or injury; yet neither do they descend to this point (which we now handle) of a just fear; neither are they of authority to judge this question against all the precedents of time. For certainly, as long as men are men (the sorts, as the poets allude, of Prometheus, and not of Epimetheus) and as long as reason is reason, a just fear will be a just cause of a preventive war; but especially if it be part of the case, that there be a nation that is manifestly detected to aspire to monarchy and new conquests; then other states (assuredly) cannot be justly accused, for not staying for the first blow; or for not accepting Polyphemus's courtesy, to be the last that shall be eaten up.

Now, I observe farther, that in that passage of Plato, which I cited before (and even in the tenet of that person that beareth the resolving part, and not the objecting part) a just fear is justified for a cause of an invasive war; though the same fear proceed not from the fault of the foreign state to be assailed: for, it is there insinuated, that if a state, out of the dissembler of their own body, do fear sedition and intestine troubles to break out amongst themselves, they may discharge their own ill humours upon a foreign war for a cure. And this kind of cure was tendered by Jasper Coligni, admiral of France, to Charles the ninth the French king, when by a vive and forcible persuasion he moved him to a war upon Flanders, for the better extinguishment of the civil wars of France; but neither was that counsel prosperous; neither will I maintain that position: for I will never set politicks against ethicks; especially for that true ethicks are but as a handmaid to divinity and religion. Surely St. Thomas (who had the largest heart of the school divines) bendeth chiefly his style against the depraved passions which reign in making wars, speaking out of St. Augustine: *Noendi cupiditas, ulciscendi crudelitas, implacatus et implacabilis animus, servitas rebellandi, libido dominandi, et si quæ sunt similia, hæc sunt quæ in bellis jure culpentur*. And the same St. Thomas, in his own text, defining of the just causes of a war, doth leave it upon very general terms: *Requiritur ad bellum cause justæ, ut scilicet illi, qui impugnantur, propter aliquam culpam, impugnationem merentur*; for *impugnatio culpæ* is a far more general word, than *ultra injuriæ*. And thus much for the first proposition, of the second ground of a war with Spain: namely, that a just fear is a just cause of a war; and that a preventive war is a true defensive.

The second or minor proposition was this; that this kingdom hath cause of just



just fear of overthrow from Spain. Wherein it is true, that fears are ever seen in dimmer lights than facts. And on the other side, fears use (many times) to be represented in such an imaginary fashion, as they rather dazzle mens eyes, than open them: and therefore I will speak in that manner which the subject requires: that is, probably, and moderately, and briefly. Neither will I deduce these fears to present occurrences; but point only at general grounds, leaving the rest to more secret counsels.

Is it nothing, that the crown of Spain hath enlarged the bounds thereof within this last sixscore years, much more than the Ottomans? I speak not of matches or unions, but of arms, occupations, invasions. Granada, Naples, Milan, Portugal, the East and West Indies; all these are actual additions to that crown. They had a mind to French Britain, the lower part of Picardy, and Piedmont; but they have let fall their bit. They have, to this day, such a hovering possession of the Valtoline, as an hobby hath over a lark: and the Palatinate is in their talons: so that nothing is more manifest, than that this nation of Spain runs a race (still) of empire, when all other states of christendom stand in effect at a stay. Look then a little farther into the titles whereby they have acquired, and do now hold these new portions of their crown; and you will find them of so many varieties, and such natures (to speak with due respect) as may appear to be easily minted, and such as can hardly at any time be wanting. And therefore, for many new conquests and purchases, so many strokes of the alarm bell of fear and awaking to other nations; and the facility of the titles, which hand-over-head have served their turn, doth ring the peal so much the sharper and louder. Shall we descend from their general disposition to enlarge their dominions, to their particular disposition and eye of appetite which they have had towards us: they have now twice sought to impatronise themselves of this kingdom of England; once by marriage with queen Mary; and the second time by conquest in 88, when their forces by sea and land were not inferior to those they have now. And at that time in 88, the counsel and design of Spain was by many advertisements revealed and laid open to be, that they found the war upon the Low Countries so churlish and longsome, as they grew then to a resolution, that as long as England stood in state to succour those countries, they should but continue themselves in an endless war; and therefore there was no other way but to assail and depress England, which was as a back of steel to the Flemings. And who can warrant (I pray) that the same counsel and design will not return again? So as we are in a strange dilemma of danger: for if we suffer the Flemings to be ruined, they are our outwork, and we shall remain naked and dismantled: if we succour them strongly (as is fit) and set them upon their feet, and do not withal weaken Spain, we hazard to change the scene of the war, and to turn it upon Ireland or England: like unto rheums and fluxions, which if you apply a strong repulsive to the place affected, and do not take away the cause of the disease, will shift and fall straightways to another joint or place. They have also twice invaded Ireland; once under the pope's banner, when they were defeated by the lord Gray: and after in their own name, when they were defeated by the lord Mountjoy. So as let this suffice for a taste of their disposition towards us. But it will be said, this is an almanack for the old year; since 88 all hath been well; Spain hath not assailed this kingdom, howsoever by two several invasions from us mightily provoked. It is true: but then consider, that immediately after 88, they were imbroiled for a great time in the protection of the league of France, whereby they had their hands full; after being brought extreme low by their vast and continual imbracements, they were enforced to be quiet that they might take breath, and do reparations upon their former wastes. But now of late, things seem to come apace to their former estate; nay, with far greater disadvantage to us; for now that they have almost continued, and (as it were) arched their dominions from Milan, by the Valtoline and Palatinate, to the Low Countries, we see how they thirst and pant after the utter ruin of those states; having in contempt almost the German nation, and doubting little opposition except it come from England: whereby either we must suffer the Dutch to be ruined, to our own manifest prejudice; or put it upon the



## OF A WAR WITH SPAIN.

hazard I spake of before, that Spain will cast at the fairest. Neither is the point of internal danger, which groweth upon us, to be forgotten; this, that the party of the papists in England are become more knotted, both in dependance towards Spain, and amongst themselves, than they have been. Wherein again comes to be remembered the case of 88: for then also it appeared by divers secret letters, that the design of Spain was (for some years before the invasion attempted) to prepare a party in this kingdom to adhere to the foreigner at his coming. And they bragged, that they doubted not to abuse and lay asleep the queen and council of England, as to have any fear of the party of papists here; for that they knew (they said) the state would but cast the eye and look about to see, whether there were any eminent head of that party, under whom it might unite itself; and finding none worth the thinking on, the state would rest secure and take no apprehension: whereas they meant (they said) to take a course to deal with the people, and particulars, by reconcilements, and confessions, and secret promises, and cared not for any head of party. And this was the true reason, why after that the seminaries began to blossom, and to make missions into England (which was about the three and twentieth year of queen Elizabeth, at what time also was the first suspicion of the Spanish invasion) then, and not before, grew the sharp and severe laws to be made against the papists. And therefore the papists may do well to change their thanks; and whereas they thank Spain for their favours, to thank them for their perils and miseries if they should fall upon them: for that nothing ever made their case so ill, as the doubt of the greatness of Spain, which adding reason of state to matter of conscience and religion, did whet the laws against them. And this case also seemeth (in some sort) to return again at this time; except the clemency of his majesty, and the state, do super-abound; as, for my part, I do wish it should: and that the proceedings towards them may rather tend to security, and providence, and point of state, than to persecution for religion. But to conclude; these things briefly touched, may serve as in a subject conjectural and future, for to represent how just cause of fear this kingdom may have towards Spain: omitting, as I said before, all present and more secret occurrences.

The third ground of a war with Spain, I have set down to be, a just fear of the subversion of our church and religion: which needeth little speech. For if this war be a defensive (as I have proved it to be) no man will doubt, that a defensive war against a foreigner for religion, is lawful. Of an offensive war there is more dispute. And yet in that instance of the war for the Holy Land and sepulchre, I do wonder sometimes, that the schoolmen want words to defend that, which S. Bernard wanted words to commend. But I, that in this little extract of a treatise do omit things necessary, am not to handle things unnecessary. No man, I say, will doubt, but if the pope, or king of Spain, would demand of us to forsake our religion upon pain of a war, it were as unjust a demand, as the Persians made to the Grecians of land and water; or the Ammorites to the Israelites of their right eyes. And we see all the heathen did style their defensive wars, *probris et sociis*; placing their altars before their hearths. So that it is in vain of this to speak farther. Only this is true; that the fear of the subversion of our religion from Spain is the more just, for that all other catholick princes and states content and contain themselves to maintain their religion within their own dominions, and meddle not with the subjects of other states; whereas the practice of Spain hath been, both in Charles the fifth's time, and in the time of the league in France, by war; and now with us, by conditions of treaty, to intermeddle with foreign states, and to declare themselves protectors general of the party of catholicks, through the world. As if the crown of Spain had a little of this, that they would plant the pope's laws by arms, as the Ottomans do the law of Mahomet. Thus much concerning the first main point of justifying the quarrel, if the king shall enter into a war; for this that I have said, and all that followeth to be said, is but to shew what he may do.

The second main part of that I have propounded to speak of, is the balance of forces between Spain and us. And this also tendeth to no more, but what the king may do. For what he may do is of two kinds: what he may do as just; and



and what he may do as possible. Of the one I have already spoken; of the other I am now to speak. I said, Spain was no such giant; and yet if he were a giant, it will be but as it was between David and Goliath, for *God is on our side*. But to leave all arguments that are supernatural, and to speak in an human and politick sense, I am led to think that Spain is no over-match for England, by that which leadeth all men; that is, experience and reason. And with experience I will begin, for there all reason beginneth.

Is it fortune (shall we think) that, in all actions of war or arms, great and small, which have happened these many years, ever since Spain and England have had any thing to debate one with the other, the English upon all encounters have perpetually come off with honour, and the better? It is not fortune sure; she is not so constant. There is somewhat in the nation and natural courage of the people, or some such thing. I will make a brief list of the particulars themselves in an historical truth, no ways strouted, nor made greater by language. This were a fit speech (you will say) for a general, in the head of an army, when they were going to battle: yes; and it is no less fit speech, to be spoken in the head of a council, upon a deliberation of entrance into a war. Neither speak I this to disparage the Spanish nation, whom I take to be of the best soldiers in Europe: but that forth to our honour, if we still have had the better hand.

In the year 1578, was that famous lammass day, which buried the reputation of Don John of Austria, himself not surviving long after. Don John being superior in forces, assisted by the prince of Parma, Mondragon, Mansell, and other the best commanders of Spain, confident of victory, charged the army of the States near Rimenant, bravely and furiously at the first; but after a fight maintained by the space of a whole day, was repulsed, and forced to a retreat, with great slaughter of his men; and the course of his farther enterprises was wholly arrested; and this chiefly by the prowess and virtue of the English and Scottish troops, under the conduct of Sir John Norris and Sir Robert Stuart, colonels: which troops came to the army but the day before, harried with a long and wearisome march; and (as it is left for a memorable circumstance in all stories) the soldiers being more sensible of a little heat of the sun, than of any cold fear of death, cast away their armour and garments from them, and fought in their shirts: and, as it was generally conceived, had it not been that the count of Bossu was slack in charging the Spaniards upon their retreat, this fight had sorted to an absolute defeat. But it was enough to chastise Don John, for his insidious treaty of peace, wherewith he had abused the States at his first coming. And the fortune of the day (besides the testimony of all stories) may be the better ascribed to the service of the English and Scottish, by comparison of this charge near Rimenant (where the English and Scottish in great numbers came in action) with the like charge given by Don John half a year before at Glemblours, where the success was contrary: there being at that time in the army but a handful of English and Scottish, and they put in disarray by the horsemen of their own fellows.

The first dart of war which was thrown from Spain or Rome, upon the realm of Ireland, was in the year 1580; for the design of Stukely blew over into Africk; and the attempt of Saunders and Fitz-Maurice had a spice of madnels. In that year Ireland was invaded by Spanish and Italian forces, under the pope's banner, and the conduct of San Jospho, to the number of 700, or better, which landed at Smerwick in Kerry. A poor number it was to conquer Ireland to the pope's use; for their design was no less: but withal they brought arms for 5000 men above their own company, intending to arm so many of the rebels of Ireland. And their purpose was, to fortify in some strong place of the wild and desolate country, and there to nestle till greater succours came; they being hastened unto this enterprise upon a special reason of state, not proper to the enterprise itself; which was by the invasion of Ireland, and the noise thereof, to trouble the council of England, and to make a diversion of certain aids, that then were preparing from hence for the Low Countries. They chose a place



where they erected a fort, which they called the *Fort del Or*; and from thence they bolted like beasts of the forest, sometimes into the woods and saltinesses, and sometimes back again to their den. Soon after siege was laid to the fort by the lord Gray, then deputy, with a smaller number than those were within the fort; venturously indeed; but haste was made to attack them before the rebels came in to them. After the siege of four days only, and two or three sallies, with loss on their part, they that should have made good the fort for some months, till new succours came from Spain, or, at least, from the rebels of Ireland, yielded up themselves without conditions at the end of those four days. And for that they were not in the English army enough to keep every man a prisoner, and for that also the deputy expected instantly to be assailed by the rebels; and again, there were no barks to throw them into, and send them away by sea; they were all put to the sword; with which queen Elizabeth was afterwards much displeased.

In the year 1582, was that memorable retreat of Gaunt; than the which there hath not been an exploit of war more celebrated. For in the true judgment of men of war, honourable retreats are no ways inferior to brave charges; as having less of fortune, more of discipline, and as much of valour. There were to the number of three hundred horse, and as many thousand foot English (commanded by Sir John Norris) charged by the prince of Parma, coming upon them with seven thousand horse; besides that the whole army of Spaniards was ready to march on. Nevertheless Sir John Norris maintained a retreat without dismay, by the space of some miles (part of the way champaign) unto the city of Gaunt, with less loss of men than the enemy: the duke of Anjou, and the prince of Orange, beholding this noble action from the walls of Gaunt, as in a theatre, with great admiration.

In the year 1585, followed the prosperous expedition of Drake and Carville into the West-Indies, in the which I set aside the taking of S. Jago and S. Domingo in Hispaniola, as surprises rather than encounters. But that of Carthagená, where the Spaniards had warning of our coming, and had put themselves in their full strength, was one of the hottest services, and most dangerous assaults that hath been known. For the access to the town was only by a neck of land, between the sea on the one part, and the harbour water or inner sea on the other; fortified clean over with a strong rampier and barricado; so as upon the ascent of our men, they had both great ordnance and small shot, that thundered and showed upon them from the rampier in front, and from the galleys that lay at sea in flank. And yet they forced the passage, and won the town, being likewise very well manned. As for the expedition of Sir Francis Drake, in the year 1587, for the destroying of the Spanish shipping and provision upon their own coast; as I cannot say that there intervened in that enterprize any sharp fight or encounter; so, nevertheless, it did strangely discover, either that Spain is very weak at home, or very slow to move; when they suffered a small fleet of English to make an hostile invasion, or incursion, upon their havens and roads, from Cadiz to Capa Sacra, and thence to Calcais; and to fire, sink, and carry away at the least, ten thousand ton of their great shipping, besides fifty or sixty of their smaller vessels; and that in the sight, and under the favour of their forts; and almost under the eye of their great admiral (the best commander of Spain by sea) the marquis de Santa Cruz, without ever being disputed with by any sight of importance. I remember Drake, in the vaunting style of a soldier, would call this enterprize, the singeing of the king of Spain's beard.

The enterprize of 88, deserveth to be stood upon a little more fully, being a miracle of time. There armed from Spain, in the year 1588, the greatest navy that ever swam upon the sea: for though there have been far greater fleets for number, yet for the bulk and building of the ships, with the furniture of great ordnance and provisions, never the like. The design was to make not an invasion only, but an utter conquest of this kingdom. The number of vessels were one hundred and thirty, whereof galliasses and galleons seventy two, goodly



ships, like floating towers, or castles, manned with thirty thousand soldiers and mariners. This navy was the preparation of five whole years, at the least: it bore itself also upon divine assistance; for it received special blessing from pope Sixtus, and was assigned as an apostolical mission for the reduction of this kingdom to the obedience of the see of Rome. And, in farther token of this holy warfare, there were amongst the rest of these ships, twelve, called by the names of the twelve apostles. But it was truly conceived, that this kingdom of England could never be overwhelmed, except the land waters came in to the sea tides. Therefore was there also in readiness in Flanders, a mighty strong army of land forces, to the number of fifty thousand veteran soldiers, under the conduct of the duke of Parma, the best commander next the French king Henry the fourth, of his time. These were designed to join with the forces at sea; there being prepared a number of flat-bottomed boats to transport the land forces, under the wing and protection of the great navy. For they made no account, but that the navy should be absolute master of the seas. Against these forces, there were prepared on our part, to the number of near one hundred ships; not so great of bulk indeed, but of a more nimble motion, and more servicable; besides a less fleet of thirty ships, for the custody of the narrow seas. There were also in readiness at land two armies; besides other forces, to the number of ten thousand, dispersed amongst the coast towns in the southern parts. The two armies were appointed; one of them consisting of twenty-five thousand horse and foot, for the repulsing of the enemy at their landing; and the other of twenty-five thousand for safeguard and attendance about the court and the queen's person. There were also other dormant musters of soldiers throughout all parts of the realm, that were put in readiness, but not drawn together. The two armies were assigned to the leading of two generals, noble persons, but both of them rather courtiers, and assured to the state, than martial men; yet lined and assisted with subordinate commanders of great experience and valour. The fortune of the war made this enterprise at first a play at base. The Spanish navy set forth out of the Groyne in May, and was dispersed and driven back by weather. Our navy set forth somewhat later out of Plymouth, and bare up towards the coast of Spain to have fought with the Spanish navy; and partly by reason of contrary winds, partly upon advertisement that the Spaniards were gone back, and upon some doubt also that they might pass by towards the coast of England, whilst we were seeking them afar off, returned likewise into Plymouth about the middle of July. At that time came more confident advertisement (though false) not only to the lord Admiral, but to the court, that the Spaniards could not possibly come forward that year; whereupon our navy was upon the point of disbanding, and many of our men gone ashore: at which very time the Invincible Armada (for so it was called, in a Spanish ostentation, throughout Europe) was discovered upon the western coast. It was a kind of surprise; for that (as was said) many of our men were gone to land, and our ships ready to depart. Nevertheless the admiral, with such ships only as could suddenly be put in readiness, made forth towards them; inasmuch as of one hundred ships, there came scarce thirty to work. Howbeit, with them, and such as came daily in, we set upon them, and gave them the chase. But the Spaniards, for want of courage (which they called commission) declined the fight, casting themselves continually into roundels (their strongest ships walling in the rest) and in that manner they made a flying march towards Calais. Our men by the space of five or six days followed them close, fought with them continually, made great slaughter of their men, took two of their great ships, and gave divers others of their ships their death's wounds, whereof soon after they sank and perished; and, in a word, distressed them almost in the nature of a defeat; we ourselves in the mean time receiving little or no hurt. Near Calais the Spaniards anchored, expecting their land forces, which came not. It was afterwards alledged, that the duke of Parma did artificially delay his coming; but this was but an invention and pretension given out by the Spaniards; partly upon a Spanish envy against that duke, being an Italian, and his son a competitor to Portugal; but chiefly to save the monstrous scorn and disreputation, which they



they and their nation received by the success of that enterprise. Therefore their colours and excuses (forsooth) were, that their general by sea had a limited commission, not to fight until the land forces were come in to them: and that the duke of Parma had particular reaches and ends of his own underhand, to cross the design. But it was both a strange commission, and a strange obedience to a commission; for men in the midst of their own blood, and being so furiously assailed, to hold their hands, contrary to the laws of nature and necessity. And as for the duke of Parma, he was reasonably well tempted to be true to that enterprise, by no less promise than to be made a feudatary, or beneficiary king of England, under the seignory (in chief) of the pope, and the protection of the king of Spain. Besides, it appeared that the duke of Parma held his place long after in the favour and trust of the king of Spain, by the great employments and services that he performed in France: and again, it is manifest, that the duke did his best to come down, and to put to sea: the truth was, that the Spanish navy, upon those proofs of fight which they had with the English, finding how much hurt they received, and how little hurt they did, by reason of the activity and low building of our ships, and skill of our seamen; and being also commanded by a general of small courage and experience, and having lost at the first two of their bravest commanders at sea, Pedro de Valdez, and Michael de Oquenda; durst not put it to a battle at sea, but set up their rest wholly upon the land enterprise. On the other side, the transporting of the land forces failed in the very foundation: for whereas the council of Spain made full account, that their navy should be master of the sea, and therefore able to guard and protect the vessels of transportation; when it fell out to the contrary that the great navy was distressed, and had enough to do to save itself; and again, that the Hollanders impounded their land forces with a brave fleet of thirty sail, excellently well appointed; things (I say) being in this state, it came to pass that the duke of Parma must have flown if he would have come into England, for he could get neither bark nor mariner to put to sea: yet certain it is, that the duke looked still for the coming back of the Armada, even at that time when they were wandering, and making their perambulation upon the northern seas. But to return to the Armada, which we left anchored at Calais: from thence (as Sir Walter Raleigh was wont prettily to say) they were suddenly driven away with squibs; for it was no more but a stratagem of fire boats, manless, and sent upon them by the favour of the wind in the night time, that did put them in such terror, as they cut their cables, and left their anchors in the sea. After they hovered some two or three days about Graveling, and there again were beaten in a great fight; at what time our second fleet, which kept the narrow seas, was come in and joined to our main fleet. Thereupon the Spaniards entering into farther terror, and finding also divers of their ships every day to sink, lost all courage, and instead of coming up into the Thames' mouth for London (as their design was) fled on towards the north to seek their fortunes; being still chased by the English navy at the heels, until we were fain to give them over for want of powder. The breath of Scotland the Spaniards could not endure; neither durst they as invaders land in Ireland; but only ennobled some of the coasts thereof with shipwrecks. And so going northwards aloof, as long as they had any doubt of being pursued, at last, when they were out of reach, they turned, and crossed the ocean to Spain, having lost fourscore of their ships, and the greater part of their men. And this was the end of that sea-giant, the Invincible Armada: which, having not so much as fired a cottage of ours at land, nor taken a cock-boat of ours at sea, wandered through the wilderness of the northern seas; and, according to the curse in the Scripture, *came out against us one way, and fled before us seven ways*. Serving only to make good the judgment of an astrologer long before given, *astutus ostenus mirabilis annus*: or rather, to make good (even to the astonishment of all posterity) the wonderful judgments of God, poured down commonly upon vast and proud aspirations.

In the year that followed, of 1589, we gave the Spaniards no breath, but turned challengers, and invaded the main of Spain. In which enterprise, although we failed in our end, which was to settle Don Antonio in the kingdom of



of Portugal, yet a man shall hardly meet with an action that doth better reveal the great secret of the power of Spain : which power well fought into, will be found rather to consist in a veteran army (such as upon several occasions and pretensions they have ever had on foot, in one part or other of Christendom, now by the space of almost sixscore years) than in the strength of their dominions and provinces. For what can be more strange, or more to the disvaluation of the power of the Spaniard upon the continent, than that with an army of eleven thousand English land-soldiers, and a fleet of twenty six ships of war, besides some weak vessels for transportation, we should, within the hour-glass of two months, have won one town of importance by scalado, battered and assaulted another, overthrown great forces in the field, and that upon the disadvantage of a bridge strongly barricadoed, landed the army in three several places of his kingdom, marched seven days in the heart of his countries, lodged three nights in the suburbs of his principal city, beaten his forces into the gates thereof, possessed two of his frontier forts, and come off after all this with small loss of men, otherwise than by sickness ? And it was verily thought, that had it not been for four great disfavours of that voyage (that is to say, the sailing in sundry provisions that were promised, especially of cannons for battery ; the vain hopes of Don Antonio, concerning the people of the country to come in to his aid ; the disappointment of the fleet that was directed to come up the river of Lisbon ; and lastly, the diseases which spread in the army by reason of the heat of the season, and of the soldiers misrule in diet) the enterprise had succeeded, and Lisbon had been carried. But howsoever it makes proof to the world, that an invasion of a few English upon Spain may have just hope of victory, at least of passport to depart safely.

In the year 1591 was that memorable fight of an English ship called the *Revenge*, under the command of Sir Richard Grenvil ; memorable (I say) even beyond credit, and to the heighth of some heroical fable : and though it were a defeat, yet it exceeded a victory ; being like the act of Samson, that killed more men at his death, than he had done in the time of all his life. This ship, for the space of fifteen hours, fate like a stag among hounds at the bay, and was sieged, and fought with, in turn, by fifteen great ships of Spain, part of a navy of fifty five ships in all ; the rest like abettors looking on afar off. And amongst the fifteen ships that fought, the great *S. Philippo* was one ; a ship of fifteen hundred ton, prince of the twelve sea apostles, which was right glad when she was shifted off from the *Revenge*. This brave ship the *Revenge*, being manned only with two hundred (soldiers and mariners) whereof eighty lay sick ; yet nevertheless after a fight maintained (as was said) of fifteen hours, and two ships of the enemy sunk by her side, besides many more torn and battered, and great slaughter of men, never came to be entered, but was taken by composition ; the enemies themselves having in admiration the virtue of the commander, and the whole tragedy of that ship.

In the year 1596 was the second invasion that we made upon the main territories of Spain ; prosperously achieved by that worthy and famous Robert earl of Essex, in concert with the noble earl of Nottingham that now liveth, then admiral. This journey was like lightning ; for in the space of fourteen hours the king of Spain's navy was destroyed, and the town of Cadiz taken. The navy was no less than fifty tall ships, besides twenty galleys to attend them. The ships were straightways beaten, and put to flight with such terror, as the Spaniards in the end were their own executioners, and fired them all with their own hands. The galleys, by the benefit of the shores and shallows, got away. The town was a fair, strong, well built, and rich city ; famous in antiquity, and now most spoken of for this disaster. It was manned with four thousand soldiers foot, and some four hundred horse ; it was sacked and burned, though great clemency was used towards the inhabitants. But that which is no less strange than the sudden victory, is the great patience of the Spaniards ; who though we stayed upon the place divers days, yet never offered us any play then, nor ever put us in suit by any action of revenge or reparation, at any time after.

In the year 1600 was the battle of Newport in the Low Countries, where  
Vol. I. 9 G the



the armies of the arch-duke, and the States, tried it out by a just battle. This was the only battle that was fought in those countries these many years. For battles in the French wars have been frequent, but in the wars of Flanders rare, as the nature of a defensive requieth. The forces of both armies were not much unequal: that of the States exceeded somewhat in number, but that again was recompensed in the quality of the soldiers; for those of the Spanish part were of the flower of all their forces. The arch-duke was the assailant, and the preventer, and had the fruit of his diligence and celerity. For he had charged certain companies of Scottish men, to the number of eight hundred, sent to make good a passage, and thereby severed from the body of the army, and cut them all in pieces: for they, like a brave infantry, when they could make no honourable retreat, and would take no dishonourable flight, made good the place with their lives. This entrance of the battle did whet the courage of the Spaniards, though it dulled their swords; so as they came proudly on, confident to defeat the whole army. The encounter of the main battle which followed, was a just encounter, not hastening to a sudden rout, nor the fortune of the day resting upon a few former ranks, but fought out to the proof by several squadrons, and not without variety of success; *Stat pedites, densisque viro vir*. There fell out an error in the Dutch army, by the over-hasty medly of some of their men with the enemies, which hindered the playing of their great ordnance. But the end was, that the Spaniards were utterly defeated, and near five thousand of their men in the fight, and in the execution, slain and taken; amongst whom were many of the principal persons of their army. The honour of the day was, both by the enemy and the Dutch themselves, ascribed unto the English; of whom Sir Francis Vere, in a private commentary which he wrote of that service, leaveth testified, that of fifteen hundred in number (for they were no more) eight hundred were slain in the field: and (which is almost incredible in a day of victory) of the remaining seven hundred, two men only came off unhurt. Amongst the rest Sir Francis Vere himself had the principal honour of the service, unto whom the prince of Orange (as is said) did transmit the direction of the army for that day; and in the next place Sir Horace Vere his brother, that now liveth, who was the principal in the active part. The service also of Sir Edward Cecil, Sir John Ogle, and divers other brave gentlemen, was eminent.

In the year 1601 followed the battle of Kinsale in Ireland. By this Spanish invasion of Ireland (which was in September that year) a man may guess how long time a Spaniard will live in Irish ground; which is a matter of a quarter of a year, or four months at most. For they had all the advantages in the world; and no man would have thought (considering the small forces employed against them) that they could have been driven out so soon. They obtained, without resistance, in the end of September, the town of Kinsale; a small garrison of one hundred and fifty English leaving the town upon the Spaniards approach, and the townsmen receiving the foreigners as friends. The number of Spaniards that put themselves into Kinsale, was two thousand men, soldiers of old bands, under the command of Don John d'Aquila, a man of good valour. The town was strong of itself; neither wanted there any industry to fortify it on all parts, and make it tenable, according to the skill and discipline of Spanish fortification. At that time the rebels were proud, being encouraged upon former successes; for though the then deputy, the lord Mountjoy, and Sir George Carew, president of Munster, had performed divers good services to their prejudice; yet the defeat they had given the English at Blackwater, not long before, and their treaty (too much to their honour) with the earl of Essex, was yet fresh in their memory. The deputy lost no time, but made haste to have recovered the town before new succours came, and sat down before it in October, and laid siege to it by the space of three winter months or more: during which time sallies were made by the Spaniard, but they were beaten in with loss. In January came fresh succours from Spain to the number of two thousand more, under the conduct of Alonzo d'Ocampo. Upon the comforts of these succours, Tyrone and Odonnell drew up their forces together, to the number of seven thousand, besides the Spanish regiments, and took the field, resolved to rescue



the town, and to give the English battle. So here was the case: an army of English, of some six thousand, wasted and tired with a long winter's siege, engaged in the midst, between an army of a greater number than themselves, fresh and in vigour, on the one side; and a town strong in fortification, and strong in men, on the other. But what was the event? This in few words: that after the Irish and Spanish forces had come on, and shewed themselves in some bravery, they were content to give the English the honour as to charge them first; and when it came to the charge, there appeared no other difference between the valour of the Irish rebels, and the Spaniards, but that the one ran away before they were charged, and the other straight after. And again, the Spaniards that were in the town had so good memories of their losses in their former battles, as the confidence of an army, which came for their deliverance, could not draw them forth again. To conclude: there succeeded an absolute victory for the English, with the slaughter of above two thousand of the enemy; the taking of nine ensigns, whereof six Spanish; the taking of the Spanish general, d'Ocampo, prisoner; and this with the loss of so few of the English as is scarce credible; being (as hath been rather confidently than credibly reported) but of one man, the cornet of Sir Richard Greame; though not a few hurt. There followed immediately after the defeat a present yielding up of the town by composition; and not only so, but an avoiding (by express articles of treaty accorded) of all other Spanish forces throughout all Ireland, from the places and nests where they had settled themselves in greater strength (as in regard of the natural situation of the places) than that was of Kinsale; which were Castlehaven, Baltimore, and Beerehaven. Indeed they went away with sound of trumpet, for they did nothing but publish and trumpet all the reproaches they could devise, against the Irish land and nation; inasmuch as D'Aquila said in open treaty, that when the devil upon the mount did shew Christ all the kingdoms of the earth, and the glory of them, he did not doubt but the devil left out Ireland, and kept it for himself.

I cease here; omitting not a few other proofs of the English valour and fortunes, in these latter times: as at the suburbs of Paris, at the Raveline, at Druse in Normandy, some encounters in Brittany, and at Ostend, and divers others; partly because some of them have not been proper encounters between the Spaniards and the English; and partly because others of them have not been of that greatness, as to have sorted in company with the particulars formerly recited. It is true, that amongst all the late adventures, the voyage of Sir Francis Drake, and Sir John Hawkins into the West-Indies, was unfortunate; yet in such sort as it doth not break or interrupt our prescription, to have had the better of the Spaniards upon all fights of late. For the disaster of that journey was caused chiefly by sickness; as might well appear by the deaths of both the generals (Sir Francis Drake, and Sir John Hawkins) of the same sickness amongst the rest. The land enterprise of Panama was an ill measured and immature counsel; for it was grounded upon a false account, that the passages towards Panama were no better fortified than Drake had left them. But yet it sorted not to any fight of importance, but to a retreat, after the English had proved the strength of their first fort, and had notice of the two other forts beyond, by which they were to have marched. It is true, that in the return of the English fleet, they were set upon by Avellaneda, admiral of twenty great ships Spanish, our fleet being but fourteen, full of sick men, deprived of their two generals by sea, and having no pretence but to journey homewards: and yet the Spaniards did but salute them, about the Cape de los Corientes, with some small offer of fight, and came off with loss; although it was such a new thing for the Spaniards to receive so little hurt upon dealing with the English, as Avellaneda made great brags of it, for no greater matter than the waiting upon the English afar off, from Cape de los Corientes to Cape Antonio; which, nevertheless, in the language of a soldier, and of a Spaniard, he called a chace.

But before I proceed farther, it is good to meet with an objection, which if it be not removed, the conclusion of experience from the time past, to the time present, will not be found and perfect. For it will be said, that in the former



mer times (whereof we have spoken) Spain was not so mighty as now it is; and England, on the other side, was more aforehand in all matters of power. Therefore let us compare with indifference these disparities of times, and we shall plainly perceive, that they make for the advantage of England at this present time. And because we will less wander in generalities, we will fix the comparison to precise times; comparing the state of Spain and England in the year 88, with this present year that now runneth. In handling of this point, I will not meddle with any personal comparisons of the princes, counsellors, and commanders by sea or land, that were then, and that are now, in both kingdoms, Spain and England; but only rest upon real points, for the true balancing of the state of the forces and affairs of both times. And yet these personal comparisons I omit not, but that I could evidently shew, that even in these personal respects the balance sways on our part; but because I would say nothing that may favour of a spirit of flattery or censure of the present government.

First therefore it is certain, that Spain hath not now one foot of ground in quiet possession, more than it had in 88. As for the Valtoline, and the Palatinate, it is a maxim in state, that all countries of new acquett, till they be settled, are rather matters of burden than of strength. On the other side, England hath Scotland united, and Ireland reduced to obedience, and planted; which are mighty augmentations.

Secondly, in 88, the kingdom of France, able alone to counterpoise Spain itself (much more in conjunction) was torn with the party of the league, which gave law to their king, and depended wholly upon Spain. Now France is united under a valiant young king, generally obeyed if he will, himself king of Navarre as well as of France; and that is no ways taken prisoner, though he be tied in a double chain of alliance with Spain.

Thirdly, in 88, there sate in the see of Rome a fierce thundering friar, that would set all at six and seven; or at six and five, if you allude to his name: and though he would after have turned his teeth upon Spain, yet he was taken order with before it came to that. Now there is ascended to the papacy, a personage, that came in by a chaste election, no ways obliged to the party of the Spaniards: a man bred in embassages and affairs of state, that hath much of the prince, and nothing of the friar: and one, that though he loves the chair of the papacy well, yet he loveth the carpet above the chair; that is, Italy, and the liberties thereof well likewise.

Fourthly, in 88, the king of Denmark was a stranger to England, and rather inclined to Spain; now the king is incorporated to the blood of England, and engaged in the quarrel of the Palatinate. Then also Venice, Savoy, and the princes and cities of Germany, had but a dull fear of the greatness of Spain, upon a general apprehension only of the spreading and ambitious designs of that nation: now that fear is sharpened and pointed by the Spaniards late enterprises upon the Valtoline and the Palatinate, which come nearer them.

Fifthly and lastly, the Dutch (which is the Spaniard's perpetual duellist) hath now, at this present, five ships to one, and the like proportion in treasure and wealth, to that they had in 88. Neither is it possible (whatsoever is given out) that the coffers of Spain should now be fuller than they were in 88: for at that time Spain had no other wars save those of the Low Countries, which were grown into an ordinary; now they have had coupled therewith the extraordinary of the Valtoline, and the Palatinate. And so I conclude my answer to the objection raised, touching the difference of times; not entering into more secret passages of state, but keeping that character of style whereof Seneca speaketh, *plus significat quam loquitur*.

Here I would pass over from matter of experience, were it not that I held it necessary to discover a wonderful erroneous observation that walketh about, and is commonly received, contrary to all the true account of time and experience. It is, that the Spaniard, where he once getteth in, will seldom or never be got out again. But nothing is less true than this. Not long since they got footing at Brest, and some other parts in French Britain, and after quitted them. They had Calais, Ardes, and Amiens, and rendred them, or were beaten out. They had



had since Marcellus, and fairly left it. They had the other day the Valtoline, and now have put it in deposit. What they will do with Ormus, which the Persian hath taken from them, we shall see. So that, to speak truly of latter times, they have rather poached and offered at a number of enterprises, than maintained any constantly; quite contrary to that idle tradition. In more ancient times (leaving their purchases in Africk, which they after abandoned) when their great emperor Charles had clasped Germany (almost) in his fist, he was forced, in the end, to go from Ilburg (and, as if it had been in a mask, by torch-light) and to quit every foot in Germany round that he had gotten; which, I doubt not, will be the hereditary issue of this late purchase of the Palatinate. And so I conclude the ground that I have to think, that Spain will be no overmatch to Great Britain, if his majesty should enter into a war, out of experience, and records of time.

For grounds of reason, they are many; I will extract the principal, and open them briefly, and (as it were) in the bud. For situation, I pass it over; though it be no small point: England, Scotland, Ireland, and our good confederates the United Provinces, lie all in a plump together, not accessible but by sea, or at least by passing of great rivers, which are natural fortifications. As for the dominions of Spain, they are so scattered, as it yieldeth great choice of the scenes of the war, and promiseth flow succours unto such part as shall be attempted. There be three main parts of military puissance, men, money, and confederates. For men, there are to be considered valour and number. Of valour I speak not; take it from the witnesses that have been produced before: yet the old observation is not untrue, that the Spaniards' valour lieth in the eye of the looker on; but the English valour lieth about the soldiers heart. A valour of glory, and a valour of natural courage, are two things. But let that pass, and let us speak of number: Spain is a nation thin sown of people; partly by reason of the sterility of the soil, and partly because their natives are exhausted by so many employments in such vast territories as they possess. So that it hath been accounted a kind of miracle, to see ten or twelve thousand native Spaniards in an army. And it is certain (as we have touched it, a little before, in passage) that the secret of the power of Spain consisteth in a veteran army, compounded of miscellany forces of all nations, which for many years they have had on foot upon one occasion or other: and if there should happen the misfortune of a battle, it would be a long work to draw on supplies. They tell a tale of a Spanish ambassador that was brought to see the treasury of S. Mark at Venice, and still he looked down to the ground; and being asked, why he so looked down, said, "he was looking to see whether their treasure had any root, so that if it were spent "it would grow again; as his master's had." But, howsoever it be of their treasure, certainly their forces have scarce any root; or at least such a root as bud-deth forth poorly and slowly. It is true they have the Walloons, who are tall soldiers; yet that is but a spot of ground. But, on the other side, there is not in the world again such a spring and seminary of brave, military people, as is England, Scotland, Ireland, and the United Provinces: so as if wars should mow them down never so fast, yet they may be suddenly supplied, and come up again.

For money, no doubt it is the principal part of the greatness of Spain; for by that they maintain their veteran army; and Spain is the only state of Europe that is a money grower. But in this part, of all others, is most to be considered, the ticklish and brittle state of the greatness of Spain. Their greatness consisteth in their treasure, their treasure in their Indies, and their Indies (if it be well weighed) are indeed but an accession to such as are masters by sea. So as this axle-tree, whereupon their greatness turneth, is soon cut in two by any that shall be stronger than they by sea. Herein therefore I refer myself to the opinions of all men (enemies or whomsoever) whether that the maritime forces of Great Britain, and the United Provinces, be not able to beat the Spaniard at sea? For if that be so, the links of that chain whereby they hold their greatness, are dissolved. Now if it be said, that admit the case of Spain to be such as we have made it, yet we ought to descend into our own case, which we



## O F A W A R W I T H S P A I N.

shall find (perhaps) not to be in state (for treasure) to enter into a war with Spain. To which I answer; I know no such thing; the mint beatech well; and the pulses of the peoples hearts beat well. But there is another point that taketh away quite this objection: for whereas wars are generally causes of poverty, or consumption; on the contrary part, the special nature of this war with Spain (if it be made by sea) is like to be a lucrative and restorative war. So that, if we go roundly on at the first, the war in continuance will find itself. And therefore you must make a great difference between Hercules' labours by land, and Jason's voyage by sea for the golden fleece.

For confederates; I will not take upon me the knowledge, how the princes, states, and councils of Europe, at this day, stand affected towards Spain; for that trencheth into the secret occurrences of the present time, wherewith, in all this treatise, I have forbore to meddle. But to speak of that which lieth open and in view; I see much matter of quarrel and jealousy, but little of amity and trust towards Spain, almost in all other estates. I see France is in competition with them for three noble portions of their monarchy, Navarre, Naples, and Milan; and now freshly in difference with them about the Valtoine. I see once in thirty or forty years cometh a pope, that casteth his eye upon the kingdom of Naples, to recover it to the church: as it was in the minds of Julius the second, Paul the fourth, and Sixtus the fifth. As for that great body of Germany, I see they have greater reason to confederate themselves with the kings of France, and Great Britain, or Denmark, for the liberty of the German nation, and for the expulsion of Spanish and foreign forces, than they had in the years 1552 and 1553. At which time they contracted a league with Henry the second the French king, upon the same articles, against Charles the fifth, who had impatronized himself of a great part of Germany, through the discord of the German princes, which himself had sown and fomented: which league at that time did the deed, and drave out all the Spaniards out of that part of Germany; and reintegrated that nation in their ancient liberty and honour. For the West Indies, though Spain hath had yet not much actual disturbance there, except it have been from England; yet nevertheless I see all princes lay a kind of claim unto them; accounting the title of Spain but as a monopoly of those large countries, wherein they have in great part but an imaginary possession. For Africk upon the west, the Moors of Valentia expelled, and their allies; do yet hang as a cloud or storm over Spain. Gabor on the east is like an anniversary wind, that riseth every year upon the party of Austria. And Persia hath entered into hostility with Spain, and given them the first blow by taking of Ormus. It is within every man's observation also, that Venice doth think their state almost on fire, if the Spaniards held the Valtoline. That Savoy hath learned by fresh experience, that alliance with Spain is no security against the ambition of Spain; and that of Bavaria hath likewise been taught, that merit and service doth oblige the Spaniard but from day to day. Neither do I say for all this, but that Spain may rectify much of this ill blood by their particular and cunning negotiations; but yet there it is in the body, and may break out, no man knoweth when, into ill accidents: and at least it sheweth plainly, that which serveth for our purpose, that Spain is much destitute of assured and confident confederates. And therefore I will conclude this part with the speech of a counsellor of state in Spain, at this day, which was not without salt: he said to his master the king of Spain, that now is, upon occasion; "Sir, I will tell your majesty thus much for your comfort; your majesty hath but two enemies, whereof the one is all the world, and the other is your own ministers." And thus I end the second main part I propounded to speak of; which was, the balancing of the forces between the king's majesty and the king of Spain, if a war must follow.



